KINCOPPAL ROSE BAY SCHOOL

SUPPLEMENTARY TRAFIC REPORT FOR PROPOSED ALTERATIONS AND ADDITIONS TO KINCOPPAL SCHOOL, ROSE BAY

RESPONSE TO MATTERS RAISED BY AUTHORITIES

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COLSTON BUDD ROGERS & KAFES PTY LTD
ACN 002 334 296
Level 18 Tower A
Zenith Centre
821 Pacific Highway
CHATSWOOD NSW 2067

Telephone: (02) 9411 2411
Email: cbrk@cbrk.com.au

REF: 11096/4

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1. INTRODUCTION

1.1 Colston Budd Rogers and Kafes Pty Ltd has been commissioned by Kincoppal Rose Bay School to prepare a supplementary traffic report regarding matters raised by Transport for NSW (TfNSW), Woollahra Council and the Department of Planning, Industry and Environment (DPIE) in relation to the exhibition of the proposed alterations and additions to the school. We previously prepared a report[1] which supported the state significant development application (SSDA) for the proposed alterations and additions to the school.

1.2 Our review and response to matters raised by TfNSW, Woollahra Council and DPIE are set down through the following chapter.

([1]) "Transport and Accessibility Impact Assessment for Proposed Alterations and Additions to Kincoppal School, Rose Bay", October 2020, Colston Budd Rogers & Kafes Pty Ltd.

2. RESPONSE TO MATTERSS RAISED BY AUTHORITIES

2.1 Matters raised by TfNSW in their letter dated 28 January 2021 are discussed below. With regards to these matters we have held discussions with TfNSW.

SIDRA Modelling and Traffic Generation

Comment

The TIA states that "no intersection improvement works are required to cater for the additional development traffic". However, SIDRA modelling provided by the applicant indicates negligible impacts to the classified road network as the analysis has adopted varying cycle lengths and phase splits for the base and proposed scenario.

TfNSW developed a similar SIDRA based on the proponents to understand the impacts of the proposed development's traffic generation to the classified road. In TfNSW analysis, the right turn movement from New South Head Road onto Vaucluse Road as a result of the development will cause safety and efficiency issues on the classified network.

Recommendation

The applicant should consider the provisioning of a dedicated right turn bay and the removal of parking on the eastern side of New South Head Road to allow two exclusive through southbound lanes. The provision of an exclusive right turn phase is not supported by TfNSW at this stage without further investigation.

The implementation of the abovementioned right turn treatment and parking restrictions with the development can produce delays similar to the existing situation, based on TfNSW's SIDRA analysis. The applicant is to consider this treatment or other mitigation measures at the subject signalised intersection. It should be noted that the mitigation measures would require TfNSW approval under Section 87 of the Roads Act 1993 and concurrence under Section 138 of the Roads Act 1993.

2.2 As set out in the traffic report that was submitted with the development application, Figures 1 and 2 show the existing traffic flows plus additional development traffic during the morning and afternoon peak periods. It can be seen from these figures that the right turn movements from New South Head Road into Vaucluse Road are currently 30 vehicles per hour during the morning and 20 vehicles per hour during the afternoon peak periods. With the proposed development, the right turn movement into Vaucluse Road is expected to increase by some 5 vehicles per hour during these peak periods. This is equivalent to on average only one additional vehicle every 12 minutes during peak periods.

2.3 As discussed below in paragraphs 2.9 to 2.15, the updated SIDRA analysis found that the additional development traffic will not have a noticeable impact on the operation of the signalised intersection of New South Head Road and Vaucluse Road or on the expected traffic queue lengths in New South Head Road. The intersection will continue to operate at the same level of services as today.

2.4 TfNSW has suggested investigating the possible provision of a dedicated short right turn bay for vehicles turning right into Vaucluse Road and provision of two exclusive through southbound traffic lanes in New South Head Road. We note that there are relatively few vehicles that turn right at the intersection and the proposed development is expected to only increase the right turn flow by some 5

vehicles per hour during peak periods. This is a relatively minor increase in the right turn traffic flow.

2.5 The updated SIDRA analysis found that with the short right turn bay and the provision of two exclusive southbound traffic lanes in New South Head Road, the intersection will continue to operate at similar average delays per vehicle and intersection levels of service during peak periods as today.

Comment

TfNSW raises significant concern regarding the likelihood of vehicular queuing on Vaucluse Road from increased traffic generation. The cumulative impact of vehicles exiting the Junior and Senior Schools along with traffic exiting from the MTC centre is not adequately assessed.

Recommendation

A comprehensive review should be undertaken of the existing traffic signal operation to limit queuing that restricts vehicles being able to exit the site through right hand turns. Modelling and traffic assessments should analyse queuing impacts from the intersection of Vaucluse Road and New South Head Road and possible risks of queuing on preventing vehicles from being able to exit the site and consequently creating on site queuing.

2.6 In order to reduce queuing in Vaucluse Road and to better manage student movements, particularly during the afternoon peak pick-up period, the school staggers the start and finishing times of the ELC, junior school and senior school. The school currently provides two on-site set-down/pick-up areas. Kindergarten

to Year 2 students (including siblings) are dropped off and picked up adjacent to the lower access road, next to the junior school. All other students are dropped off and picked up at the MTC building, on the eastern side of Vaucluse Road. The afternoon pick-up operation at the two locations (junior school and MTC building) are staggered by 10 minutes. Kindergarten to Year 2 students are picked up at 3.00pm, Year 3 to Year 6 are picked up at 3.10pm and all other students are picked up at 3.20pm.

2.7 In association with the proposed development a new on-site student set-down/pick-up facility will be provided with access off Vaucluse Road. The additional set-down/pick-up facility will provide additional on-site queuing, improved efficiency of existing set-down/pick-up operation, improve on-road traffic conditions and reduce traffic queues in Vaucluse Road. The three student set-down/pick-up facilities will be managed, and the staggering of the afternoon pick-up operation at the three locations will be increase to 15 minutes (total student pick-up period during the afternoon will be 45 minutes).

2.8 As discussed below, the updated SIDRA analysis has assessed the cumulative impact of the increase in student numbers during the morning and afternoon peak periods, across the three student set-down/pick-up facilities. The SIDRA analysis found that the additional traffic from the increase in student numbers will not have noticeable effects on the operation of the surrounding road network, nor on the queue lengths in Vaucluse Road, on approach to the New South Head Road traffic signals.

Comment

SIDRA modelling does not accurately reflect current site operations.

Recommendation

SIDRA modelling should be undertaken with a cycle time of 120 seconds instead of 91 seconds which has been used in the current data. In addition to such, no SIDRA layout or phasing for existing and future model provided. A copy of the traffic control signal layout and operation should be provided to TfNSW for review.

2.9 With regards to the traffic modelling set out in the traffic report, we have updated the SIDRA model for the intersections in the vicinity of the site to a SIDRA 9 Network model and included a cycle time of 120 seconds for the morning and afternoon peak periods. Electronic copies of the SIDRA files will be sent separately to TfNSW.

2.10 SIDRA 9 Network model allows the analysis of a network of intersections and interaction of traffic flows between intersections. It provides a number of performance measures. The most useful measure provided is average delay per vehicle expressed in seconds per vehicle.

2.11 The results of the SIDRA 9 analysis found that the signalised intersection of New South Head Road and Vaucluse Road, with a cycle time of 120 seconds, currently operates with average delays of less than 28 second per vehicle during the morning and afternoon school peak periods. This represents level of service B/C, a satisfactory level of intersection operation.

2.12 With the additional development traffic, shown on Figures 1 and 2, the intersection of New South Head Road and Vaucluse Road would continue to operate with average delays per vehicle of 28 seconds or less during peak periods.

This represents level of service B/C, a satisfactory level of intersection operation, the same as today.

2.13 An assessment of queuing in New South Head Road and Vaucluse Road has also been undertaken with and without the development traffic in place for the morning and afternoon peak periods. Table 1 below summarises the SIDRA analysis 95% back of queues for the centre lane of New South Head Road southbound (right turn into Vaucluse Road) and the eastbound traffic lane in Vaucluse Road on approach to New South Head Road.

Table 1: 95% Back of Queue

Queue	**Existing**		**Existing Plus Development**	
	AM	**PM**	**AM**	**PM**
New South Head Road - southbound centre lane (right turn and through traffic)	70	80	71	80
Vaucluse Road - eastbound traffic lane	73	73	73	73

2.14 Examination of Table 1 shows that traffic queues in New South Head Road and Vaucluse Road, as a result of the proposed development, will be similar to the existing traffic queues at the intersection.

2.15 Overall the SIDRA analysis found that there would be minimal change in the operation of the intersection of New South Head Road and Vaucluse Road with development traffic in place.

Comment

Traffic volumes used do not show the date that survey data was collected.

Recommendation

This should be clarified to ensure that surveys were undertaken during the school term.

2.16 With regards to traffic flow data, traffic counts were undertaken during the morning and afternoon periods on Tuesday 26 March 2019, during the school term. Traffic counts were undertaken 7:00am to 9:00am and 2:30pm to 4:30pm at the following intersections.

- New South Head Road/Vaucluse Road;
- Vaucluse Road/Gilliver Avenue;
- Vaucluse Road/senior school access;
- Vaucluse Road/junior school access; and
- Vaucluse Road/MTC access.

Swept Paths

Comment

Swept paths for the proposed basement staff parking in the Senior School do not show vehicles being able to enter and exit car spaces. Particular concern is raised for car spaces 7, 16 and 23.

Recommendation

Swept path modelling should demonstrate that all car spaces able to be accessed safely and efficiently in accordance with Australian Standard AS/NZ 2890.1-2004.

2.17 Within the basement staff car park, car spaces will be 2.4 metres wide by 5.4 metres long. Spaces located adjacent to structure will be 0.3 metres wider to appropriately provide for doors to open. Dead end aisle will include a 1 metre aisle extension to provide appropriate access to end parking bays. Circulation aisles be will 5.8 to 6.1 metres wide and height clearance will be 2.2 metres. These dimensions are in accordance with the Australian Standard AS2890.1-2004.

2.18 In association with the above, the basement car park will be modified to include the required 1 metre aisle extensions to the two dead end aisles, in accordance with AS2890.1-2004.

2.19 Swept paths of vehicles accessing the car parking spaces (including the required 1 metre aisle extension) are shown on Figures 3 to 7. The swept paths have been prepared in accordance with the design requirements set out in Australian Standard. It should be noted that AS2890.1-2004 states that constant radius swept turning paths, based on the design vehicle's minimum turning circle are not suitable for determining the aisle width needed for manoeuvring into and out of parking spaces. Drivers can manoeuvre vehicles within smaller spaces than the swept paths would suggest.

2.20 Swept path analysis has also been prepared for 8.8 metre medium rigid trucks and 9.2 metre waste collection vehicles, accessing the waste collection area, as shown on Figures 8 and 9. It can be seen from these swept paths that service vehicles and waste collection vehicles will be able to enter the site, access the service vehicle and waste collection area, and leave the site in a forward direction.

2.21 Figure 10 shows the swept path of a B99 design vehicle accessing the new on-site student set-down/pick-up facility off Vaucluse Road. The vehicle swept paths

indicate that appropriate access has been provided for cars and service vehicles to access the site.

Construction Management

Comments

Kincoppal-Rose Bay School may coincide with Kambala School Sports Precinct Redevelopment (SSD-10385) during construction phase. The outbound stop on New South Head Road (TSN 203082) is critical for maintaining public transport access to the Kambala School Sports Precinct Redevelopment during its construction phase,

Recommendation

The proponent should avoid any potential issues where successive bus stops are lost due to temporary construction needs of the two Schools. It is requested that these requirements are reflected in the Construction Management Plan.

2.22 This matter is noted and will be addressed in the Construction Traffic Management Plan (CTMP). The CTMP will be prepared by the appointed builder, in consultation with TfNSW, Council and DPIE, prior to the issue of the construction certificate.

Green Travel Plan

Comment

The Traffic Impact Assessment submitted does not address the requirements in the SEARs as at present, there is only a brief mention of a Green Travel Plan (GTP) within Sections 3.11-3.24 of the TIA. The submission states a GTP will be developed in the future, as opposed actually submitting a polished GTP with clear actions. This is acknowledged in Section 3.14 which states:

"The GTP will comprise a package of measures designed to address the specific travel needs of the site."

Recommendation

Prior to the issue of the first occupation certificate, the proponent should prepare a stand-alone, holistic Green Travel Plan (GTP) to meet the requirements of Section 8 of the SEARs, in consultation with Transport for NSW. The GTP should be based on current and projected student catchment data including the number and/or proportion of students living in each postcode. Analysis of the travel survey and school catchment data should be used to inform mode share targets and actions for implementation under the GTP.

The Green Travel Plan should include, but not be limited to:

- *including analysis of staff and student travel survey data and school postcode data and discussion of how this data has informed the mode share targets and actions of the GTP;*

- *identifying the number of staff and students within reasonable walking/cycling distance;*
- *staged mode share targets for staff and students which reflect a commitment to increase non car mode share for travel to and from the site, and strategies to deliver those mode share targets;*
- *include strategies that encourage the use of public and active transport and discourage the use of single occupant car travel to access the site; for staff and students;*
- *include the provision of bicycle parking, dedicated end of trip facilities including but not limited to lockers, showers and change rooms and e-bike charging station(s) for staff and students to support an increase in the non-car mode share for travel to and from the site;*
- *prepare a Transport Access Guide for staff and students providing information about the range of travel modes, access arrangements and supporting facilities that service the site; and*
- *determine a communication strategy for engaging with students, staff and visitors regarding public and active transport use to the site and the proportion of the health and wellbeing benefits of active and non-car travel to the site.*

2.23 This matter is noted. A Green Travel Plan (GTP) will be prepared prior to the issue of the construction certificate. The GTP will be prepared in consultation with TfNSW, Council and DPIE, and will be required to meet the requirements of Section 8 of the SEARs.

2.24 Matters raised by Woollahra Council in their letter dated 29 January 2021 are discussed below:

Parking Provision

i. There is a shortfall of at least three (3) car parking spaces, which in reality should be seven (7) according to the school survey, or more if the undersupply of the existing parking provision is considered;

2.25 In accordance with Council's DCP requirements, the proposed alterations and additions to the school will provide an additional 31 on-site parking spaces for staff and visitors. The architectural plans have been amended to include the required additional parking spaces.

2.26 The school will ultimately provide a total of 134 parking spaces (including four accessible parking spaces), three motorcycle spaces and 18 bicycle parking spaces, as shown on Figure 11.

2.27 The provision of the additional on-site parking spaces will be staged in accordance with the staging of the proposed alterations and additions to the school. The additional required parking spaces will be provided in accordance with the expected student numbers and staff numbers at that time, associated with each stage of development.

2.28 During the early stages of the development, prior to the construction of the new basement car park, additional at-grade car parking spaces will be provided. These parking spaces will form part of the required additional 31 parking spaces and will be located follows, as shown on Figure 11:

- Location 8 - additional 2 spaces;
- Location 14 - additional 4 spaces;
- Location 15 - additional 7 spaces; and
- Location 16 - additional 3 spaces.

2.29 The new basement car park will be constructed during the latter stages of the development, to meet the needs of the expected increase in staff numbers associated with the junior school and the redevelopment of the Year 8 centre. The proposed staged parking provision is therefore considered appropriate.

ii. TfNSW be consulted as the specified authority for the proposed development to discuss the parking and traffic implications, as per State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017;

2.30 In association with the preparation of the transport and accessibility impact assessment for the proposed alterations and additions to the school, TfNSW were consulted and their comments taken into consideration in the SSDA. In addition, further matters raised by TfNSW have been addressed in this document.

iii. Insufficient provision of bicycle parking spaces to accommodate the increased demand, bicycle share of travel modes and the parking demand should be explored accordingly;

2.31 As set out in the traffic report, no students or staff members currently cycle to the school. Given the location of the school, in terms of topography, the school is not conveniently located for access by bicycles.

2.32 Notwithstanding this, in association with the development of the GTP, the school will promote the use of sustainable transport modes, reduce the use of private vehicles, reduce the growth of greenhouse gas emissions, provide a more affordable means of transport and encourage healthier travel options, by encouraging students and staff to walk and cycle to/from school.

2.33 As shown on the amended plans, 18 new bicycle parking facilities will be provided within the senior school campus. End of trip facilities, including showers, change rooms and lockers are provided in the MTC building, for those students and staff who choose to cycle to the school.

iv. A shortfall of three (3) motorcycle parking spaces when considered against the DCP's minimum requirement;

2.34 As shown on the amended plans, three new motorcycle parking spaces will be provided within the new basement car park to be located beneath the new bus parking area, adjacent to the reconfigured senior school forecourt.

Traffic Generation

i. *Post-development traffic on Vaucluse Road significantly exceeds the environmental and desirable goal of capacity by 85%, exceeding the absolute maximum requirement by 11%, as per Table 4.6 of RMS Guide to Traffic Generating Developments 2002;*

ii. More information should be submitted to allow a more comprehensive and accurate assessment for post-development traffic generation;

2.35 We note that traffic flows on surrounding streets would increase as shown on Figures 1 and 2, and as set out in Table 3.1 of the traffic report.

2.36 The use of environmental capacity performance standards, is not considered appropriate for schools because traffic generated by school will occur for only short periods in the weekday morning and afternoon, and for the majority of the time, over the day, there will be no marked change in traffic flow.

2.37 With regards to the increase in traffic flows on Vaucluse Road exceeding the environmental capacity of the street, it is considered that the increase in traffic as a result of the proposed alterations and additions to the school, is acceptable because:

- Vaucluse Road provides the sole access to the school, with no alternative access onto other streets available. The school is located on both sides of Vaucluse Road, between New South Head Road and Gilliver Avenue;

- the majority of the increase in traffic flow will occur within a short section of Vaucluse Road, between New South Head Road and the existing junior school access driveway. There are no residential dwellings within this section of Vaucluse Road;

- the increase in traffic flow on Vaucluse Road north of the existing junior school access driveway will be relatively small and there will be no expected increase in traffic flow in Vaucluse Road north of Gilliver Avenue. As a result, the increase in traffic for these sections of road will not exceed their environment capacity;

- school traffic will typically access the school to and from the signalised intersection of New South Head Road and Vaucluse Road;

- increase in traffic near schools is a common occurrence and schools are typically located in local areas to serve the community. Hence applying environmental capacity criteria to assess the traffic implications of schools is not appropriate as it would result in no schools being provided in local areas.

2.38 In addition to the above, we note that the proposed new on-site student set-down and pick-up facility at the school will improve the efficiency of the existing set-down and pick-up operations during the morning and afternoon periods. It will significantly increase the available on-site queuing area for vehicles setting down and picking up students, reduce traffic congestion and improve traffic conditions in Vaucluse Road, by reducing on-street traffic queues.

2.39 As discussed below, a GTP will also be prepared for the school, to encourage alternative travels modes to the school, away from private vehicles, and to reduce the overall traffic generation, including traffic flows on Vaucluse Road.

Green Travel Plan

i. A green travel plan (GTP) to be submitted prior to consent for further assessment, as per Part E1.12 of Council's DCP, to address the following issues at a minimum:

- *Targets set in GTP should be reasonable, practical and quantifiable;*
- *Targets should be developed for different phases of school development to cater to the increase of student and staff, if necessary;*

- *The implications of the GTP should assist with the current parking and pick-up/drop-off arrangement to ensure a safe and efficient circulation in the vicinity;*
- *Strategies and measures to achieve proposed targets;*
- *The implementation and enforcement of the proposed GTP.*

ii. A more detailed description of bus routes and operation schedules be submitted, separately or included in GTP/TPMP, for further assessment;

2.40 With regards to point i), a GTP will be prepared prior to the issue of the construction certificate. The GTP will be prepared in consultation with TfNSW, Council and DPIE, and will be required to meet the requirements of Section 8 of the SEARs.

2.41 The GTP will include but not limited to the following measures:

- encourage the use of public transport, including increasing the frequency of the staff shuttle bus service to/from Edgecliff interchange;
- encourage students to use the KRB mini bus service and review the need for additional bus routes;
- work with public transport providers to improve services;
- introduce a staff car pool register. This will inform staff of the travel characteristics of other staff members with similar travel destinations. New staff will be advised of the register and encouraged to car pool with other staff;

- develop an online student and parent platform to encourage students to travel in groups with other students that live in the same area;

- encourage parents/carers to allow older students to travel by public transport to and from school;

- promote the use of sustainable transport modes and provide a more affordable means of transport;

- encourage the use of public transport to reduce the use private vehicles;

- encourage healthier travel options for students and staff, such as walking and cycling;

- introduce a buddy system at the school were younger students are partnered with senior students that live in the same area and can travel together on public transport;

- encourage students and parents to use the school online platform or alternative mobile app, such as 'Skoolbag', to provide easily accessible information about the school activities, including the use of the various student set-down/pick-up areas;

- encourage public transport use by staff and visitors through the development of a school transport access guide, which will provide public transport information, maps, car share vehicle locations and public transport timetables;

- provide appropriate on-site parking provision, consistent with the objective of reducing traffic generation; and

- provide appropriate bicycle parking and end of trip facilities for those students and staff who choose to cycle to the school.

2.42 With regards to point ii), the school provides dedicated KRB mini bus services for students and staff. These services include:

- Malabar/Maroubra/Coogee/Bronte/Bondi/KRB;
- Eastgardens/Pagewood/Kingsford/Randwick/Tamarama/KRB;
- Stanmore/Annandale/Rozelle/Balmain/City/Woollahra/KRB;
- Hunters Hill/Lane Cove/Greenwich/KRB;
- Willoughby/Northbridge/Cammeray/Paddington/KRB;
- Earlwood/Marrickville/Paddington/Woollahra/Bondi/KRB;
- Seaforth/Balmoral/Mosman/Cremorne/Neutral Bay/KRB; and
- Edgecliff Station/William Street/Macquarie Street/Circular Quay.

2.43 Bus timetables for these private school services are attached.

2.44 These KRB bus services operate before and after school, setting down and picking up students on-site from the main senior school forecourt, off Vaucluse Road. The KRB buses enter the school via the main school access driveway adjacent to the signalised intersection of New South Head Road and Vaucluse Road, and exit via the northern access driveway onto Vaucluse Road. The KRB buses will be accommodated within the new bus parking area, adjacent to the reconfigured senior school forecourt.

2.45 In addition to the KRB mini bus services, the school also provides a staff shuttle bus service to and from Edgecliff interchange. Three shuttle bus services operate during the morning and afternoon periods respectively, at the start and end of the school day.

Pick-up/Drop-off & Operational Traffic Management Plan

i. More detailed information be submitted regarding pick-up/drop-off arrangements to ensure an efficient circulation is provided during the ongoing operations to manage the safety of students and staff, whilst minimising impacts on the amenity of the surrounding community;

ii. A Traffic and Pedestrian Management Plan (TPMP) be developed, as per Part F2.6 of Council's DCP, to address the following issues at a minimum:

- *Detailed pick-up and drop-off arrangements, with consideration of overlapping of time among students attending the ELC, before & after school care, as well as co-curriculum activities;*
- *Queuing analysis to demonstrate that pick-ups and drop-offs can be undertaken on-site;*
- *Mini-bus service routes and schedules;*
- *Pedestrian desire lines;*
- *Measures to enhance pedestrian safety when entering or crossing roads.*

2.46 The school currently provides two on-site student set-down/pick-up areas. The first is located adjacent to the junior school, within the main school campus, and the second adjacent to the MTC car park, on the western side of Vaucluse Road. In association with the proposed alterations and additions to the school, a third

on-site student set-down/pick-up area will be provided on the northern side of the senior school, within the main school campus.

2.47 Access to the new student set-down/pick-up area will be provided via a new driveway crossing onto Vaucluse Road. The new driveway will link to a one-way internal circulation road circulating through the set-down/pick-up area, with vehicles exiting back onto Vaucluse Road via the existing junior school driveway to the north. The new driveway will only be available during the morning and afternoon periods to provide for the set-down and pick-up of students. The driveway will be closed at other times during the day.

2.48 The new on-site student set-down/pick-up area will provide additional on-site queuing for some 14 vehicles. It will improve the efficiency of the existing set-down/pick-up operations during the morning and afternoon periods, improve on-road traffic conditions and reduce traffic queues in Vaucluse Road during peak periods.

2.49 The existing on-site student set-down/pick-up operations at the junior school and adjacent to the MTC car park will be maintained. Students will be distributed by year group to one of the three set-down and pick-up locations, which will be managed by school staff during the morning and afternoon periods.

2.50 In addition, the school will continue to stagger the start and finish times of the ELC, junior school and senior school. Further, the set-down/pick-up operation of the ELC will be further managed to not coincide with the set-down/pick-up operations of the junior and senior schools. This will reduce the number of cars present at the school at any given time and better manage student movements during peak periods.

2.51 The student set-down/pick-up operation will be managed in accordance with an approved operational traffic management plan to be prepared by the school. The plan, as shown on Figure 12, will include the following:

Morning Student Set-Down Operation

- supervised drop off between 8.00am and 8.25am (staff supervision);
- ELC, Kindergarten and Year 1 students (including siblings) to be dropped off at the junior school roundabout;
- Year 2, 3 and 4 students (including siblings) to be dropped off at the new on-site student set-down and pick-up area;
- all other junior school students and senior school students to be dropped off at either the MTC car park or at the New South Head Road 'Kiss and Drop' zone;
- student drop off will be supervised by staff at each of the designated student set-down locations (parents will not be permitted to exit the vehicle whilst dropping off students);
- students will not be permitted to be dropped off along Vaucluse Road or walk along the footpath from the MTC car park;
- school bags must be with students in the vehicles to allow for a quick drop off operation;

- students dropped off at the MTC car park will be directed by staff to use the tunnel beneath Vaucluse Road to access the junior school and the main school campus;

- students dropped off at the New South Head Road 'Kiss and Drop' zone will be directed by staff to cross Vaucluse Road at its signalised intersection with New South Head Road and to enter the school via the senior school gate;

- the school access driveways will be supervised by traffic marshals during the morning set-down period, to ensure that traffic queues do not extend onto Vaucluse Road. Should traffic queues extend onto Vaucluse Road, these vehicles will be instructed by the traffic marshal to move on and recirculate before entering the school grounds;

- staff/traffic marshals will also be located at the bus stops on New South Head Road and at the signalised intersection of New South Head Road and Vaucluse Road to supervise students accessing the school by public transport;

<u>Afternoon Student Pick-Up Operation</u>

- supervised pick-up between 2.50pm and 3.30pm (staff supervision);

- student pick-ups will be staggered as follows:

    - student pick-ups from junior school roundabout from 2.50pm;
    - student pick-ups from new pick-up area from 3.05pm;
    - student pick-ups from MTC car park from 3.20pm;

- ELC, Kindergarten and Year 1 students (including siblings) to be picked up from the junior school roundabout;

- Year 2, 3 and 4 students (including siblings) to be picked up from the new on-site student set-down and pick-up area;

- all other junior school students and senior school students to be picked up from the MTC car park;

- vehicles may enter the on-site school student pick-up areas from 2.50pm. Vehicles will not be permitted to queue in Vaucluse Road during the afternoon pick-up period;

- MTC car line will not begin until 3.20pm. No cars will be permitted to enter MTC ramp access until 3.20pm;

- student pick-ups will be supervised by staff at each of the designated student pick-up locations (parents will not be permitted to exit the vehicle whilst picking up students);

- all vehicles will be required to have family names clearly displayed on vehicle visor;

- students will not be permitted to exit the junior school to meet parents at alternative pick-up locations;

- senior school students to attend pick-up locations according to their younger sibling's allocated pick-up area;

- parents are required to notify the school by email if the student is permitted to walk home or travel home by alternative means;

- staff to escort junior school students to the MTC pick-up area, to the new pick-up area within the main school campus and to the KRB bus line;

- parents will be encouraged to use the school online platform or alternative mobile app, to provide easily accessible information about the school activities, including the use of the various student set-down/pick-up areas;

- the school access driveways will be supervised by traffic marshals during the afternoon pick-up period, to ensure that traffic queues do not extend onto Vaucluse Road. Should traffic queues extend onto Vaucluse Road, these vehicles will be instructed by the traffic marshal to move on and recirculate before entering the school grounds;

- staff/traffic marshals will also be located at the bus stops on New South Head Road and at the signalised intersection of New South Head Road and Vaucluse Road to supervise students travelling by public transport.

Construction Traffic Management Plan

i. A CTMP be prepared in accordance with Council's checklist. Link: https://www.woollarah.nsw.gov.au/building_and_development/submit_a_da/prepare_your_application/construction_management_plan.

ii. TfNSW be consulted in the process of developing the CMP to ensure that the operation of the signalised intersection of New South Head Road and Vaucluse Road, as well as traffic flow along New South Head Road is not adversely affected.

It is understood that a Works Zone on New South Head Road is unlikely to be supported by TfNSW.

2.52 The construction methodology, process and staging will be finalised when a builder has been appointed. The CTMP will be prepared in consultation with TfNSW, Council and DPIE, prior to the issue of the construction certificate and taking into consideration relevant consent conditions.

2.53 The proposed construction activity includes the following:

- Precinct A: Junior School;
- Precinct B: Senior School; and
- Precinct C: Expansion to Boarding House.

2.54 The construction staging plans for each of these three precincts are shown in Appendix C, and include the following:

- Precinct A Staging
  - new junior school site entry off Vaucluse Road, new drop-off/pick-up area and new elevated footbridge access to the junior school;
  - early learning centre extensions;
  - junior school assembly, new learning areas and trafficable roof;
  - new lift and stair facilities;

- Precinct B Staging
  - drop-off/pick-up at the senior school, new bus parking and basement car park;
  - revised access road through senior school forecourt;

- redevelopment of Year 8 centre;
- main entry forecourt, landscaping and accessible entry ramps;
- main entry forecourt, foyer, administration and leadership office;

- Precinct C Staging
  - refurbishment of senior school Hughes Centre;
  - refurbishment of senior school circulation hub;
  - boarding accommodation extensions.

Overall Principles for Construction Traffic Management

2.55 The overall principles for traffic management during construction of the development are:

- provide a convenient and appropriate environment for students, staff and pedestrians;
- minimise effects on pedestrian movements and amenity;
- manage and control construction vehicular movements to and from the school;
- limit construction activity to outside the morning and afternoon school peak periods;
- stage the construction activity to limit the impact on the on-going school operation;
- maintain traffic capacity at intersections and mid-block on adjacent roads;
- maintain access to other properties adjacent to the school;
- restrict construction vehicle activity to designated truck routes through the area;
- maintain safety for construction workers;

- provide appropriate construction fencing around the construction compounds and along Vaucluse Road, as required;
- provide appropriate access to the site for construction traffic;
- manage and control construction vehicles on and off the site and pedestrian movements adjacent to the construction access driveways; and
- manage and control construction vehicle activity in the vicinity of the school.

2.56 On-street work zones will not be required on New South Head Road or Vaucluse Road, with all construction activity confined to the on-site construction compounds.

Hours of Work

2.57 Work associated with construction activities will be carried in accordance with the development approval and conditions of consent. Typical construction hours will be as follows:

- Monday to Friday - 7:00am to 5:00pm;
- Saturday - 7:00am to 1:00pm; and
- Sunday/Public Holiday - No Work.

2.58 All construction work will be carried out in accordance with the consent conditions and the Australian Standard AS2436.10 Guide to Noise Control and Construction, Maintenance and Demolition Sites. The site contractor will be responsible to instruct and control all workers and sub-contractors regarding the hours of work. Any work outside these times would be subject to prior approval from Woollahra Council and other relevant authorities.

Truck Routes

2.59 During demolition, excavation and construction, trucks removing spoil and transporting material to the school will be accommodated on-site. Access to and from the construction compounds will be provided from Vaucluse Road, via the existing school access driveways. Access arrangement and vehicle movements to and from the site will be managed by qualified traffic controllers. Construction vehicles will generally include single unit dump truck, concrete trucks and large rigid trucks for the delivery of construction material.

2.60 In order to ensure that construction vehicles will not impact on school operations or student movements during the morning and afternoon school peak periods, construction vehicles will be prevented from accessing the site during these times.

2.61 Traffic movements on surrounding roads and continued access to adjacent properties will be maintained during construction. Truck movements will be restricted to designated truck routes and will be confined to the main road network in the vicinity of the school.

2.62 Trucks removing spoil from the site or delivering construction materials, will be required to access the school via the signalised intersection of New South Head Road and Vaucluse Road. Construction vehicles will be prevented from accessing the school via residential street to the north. Truck drivers will be inducted and advised of the designated truck routes to and from the school.

Construction Site Entries

2.63 During demolition, excavation and construction, all construction vehicles and materials handling, including the removal of spoil and delivery of construction material, will be accommodated on-site. Construction fencing will be erected around the perimeter of the staged construction compounds, with scaffolding and overhead protection provided where required.

2.64 Trucks will enter and exit the school grounds in a forward direction. The construction access driveways onto Vaucluse Road will be managed and controlled by qualified traffic controllers. The traffic controllers will be located within the school grounds and will manage student/pedestrians and truck movements across the adjacent footpaths. They will ensure that the access driveways are kept clear at all times, to allow trucks unobstructed access to the site. They will not enter the public road reserve or attempt to stop vehicles within Vaucluse Road. Trucks exiting the site will give way to traffic and pedestrians and will wait for appropriate gaps in the traffic in order to enter the surrounding road network.

2.65 To minimise impact on school operations, construction vehicles will not be permitted to access the school during the morning and afternoon school peak periods.

2.66 The construction access driveways will provide appropriate sight lines for construction vehicle access, with regards to the number, type and size of construction vehicles. Pedestrian warning signs will be erected adjacent to the driveways and on pedestrian paths adjacent to the construction activity, in accordance with SafeWork NSW requirements.

2.67 Truck drivers will be advised of the presence of the traffic controllers, and that they must observe that persons directions at all times. All traffic controllers will be fully qualified with the relevant TfNSW Traffic Controllers qualifications.

2.68 All traffic controllers and work personnel will be required to wear high visibility fluorescent safety vests and Personnel Protective Equipment (PPE). Wet weather clothing will be made of fluorescent high visibility material.

Construction Traffic Effects

2.69 The number of vehicles generated during the various stages of construction will be determined when the construction methodology, process and staging is finalised by the builder. However, the peak construction activity will generally occur during demolition and excavation, with the removal of spoil from the site, and during concrete pours, with the delivery of concrete to the site. During demolition and excavation, an estimate of the likely truck movements would be some 15 to 20 trucks per day.

2.70 During construction, it is anticipated that there would be some two to three concrete pours per week. Concrete pours will range from some 5 to 10 concrete trucks for small pours to some 20 to 30 concrete trucks for large pours. During non concrete pour days, the number of truck movements would be some 10 to 15 trucks per day delivering construction material to the site. These are relativity low traffic flows, equivalent to some 4 to 6 truck movements per hour two-way during the construction period.

2.71 Notwithstanding that these are low traffic flows, construction traffic will be managed to minimise the overall traffic effects on the surrounding road network, through the following measures:

- ensure that construction vehicles travel to and from the school along the designated truck routes. No construction vehicles are to use local residential streets in the vicinity of the school;
- construction vehicles will not be permitted to access the school during the morning and afternoon school peak periods;
- traffic controllers to manage the movement of construction vehicles entering and exiting the school grounds;
- control the size of construction vehicles;
- ensure that trucks do not park within surrounding street. All construction vehicles are to be accommodated within the school;
- co-ordinate and manage the arrival of trucks and the delivery of construction material to and from the school; and
- ensure that all truck drivers are advised of the construction traffic management procedures.

Pedestrians

2.72 Pedestrian routes in the vicinity of the school along New South Head Road and Vaucluse Road and along the pedestrian paths within the school grounds will be maintained during construction. No construction vehicles will be parked nor will material/equipment be stored on the public footpaths adjacent to the school. Appropriate construction fencing will be erected around the construction compounds and along Vaucluse Road.

2.73 The openings in the construction fencing at the construction access driveways will be managed and controlled by qualified traffic controllers. Pedestrian warning signs will be erected adjacent to the driveways and on pedestrian paths adjacent to the construction compounds, in accordance with SafeWork NSW requirements.

2.74 The movement of trucks entering and exiting the school grounds, and the movement of students, staff and pedestrians across the construction access driveways when in use, will be managed and controlled by traffic controllers.

Community Public Consultation

2.75 In regards to community public consultation process relating to the construction activity, the appointed builder/contractor will undertake meetings and discussions with Woollahra Council and other authorities. A line of communication will be established between builder and the various stakeholders to discuss the proposed construction staging.

2.76 In addition, the builder/contractor will establish a 24 hour feedback telephone hotline and complaints register, and establish procedures to respond to issues raised by stakeholders, public and community groups. A dedicated website will be established containing information about the project, status of work and other relevant notices.

Draft Construction Traffic Management Plan

2.77 The draft traffic management plan for construction of proposed alterations and additions to the school is presented below. It includes the principles of traffic management and is subject to SafeWork NSW requirements, as well as survey and final design.

2.78 The appointed builder/contractor will be responsible for preparation of a detailed construction traffic management plan, to incorporate these principles and refine the construction methodology, staging and timing. Draft construction staging plans of the proposed works are provided in Appendix C.

2.79 Site operations, signage, construction fencing/hoarding, overhead protection, safety barriers and line marking detail will be provided in accordance with Australian Standards and the TfNSW Manual for Traffic Control at Work Sites. A copy of the traffic management plan will be kept on-site at all times. Signage details, traffic management, the control of students, staff and pedestrians in the vicinity of the construction activity, and the control of trucks to and from the site will be the responsibility of the site contractor.

2.80 The draft construction traffic management plan includes the following:

- all construction activity to be provided for within the on-site construction compounds;
- on-street work zones will not be required;
- the construction activity will be staged and coordinated with the on-going school operation;
- limit construction activity to be outside the morning and afternoon school peak periods;
- construction vehicle access to be provided via the existing school access driveways onto Vaucluse Road;
- construction fencing and scaffolding to be erected around the on-site construction compounds, with overhead protection provided where required;
- construction work to be restricted to the approved hours of construction. Any work outside the approved hours would be subject to prior approval from Woollahra Council;
- the movement of trucks on and off the site to be managed and controlled by traffic controllers in accordance with a safe work method statement and appropriate traffic control plans;

- construction vehicles will include single unit dump truck, concrete trucks and large rigid delivery trucks;

- truck movements to and from the construction compounds to be restricted to the designated truck routes;

- no construction vehicles are to use local residential streets to access the school;

- trucks to enter and exit the school grounds in a forward direction;

- maintain access to other adjacent properties in the vicinity of the site at all times during construction;

- maintain appropriate capacity for pedestrians and cyclists at all times along the adjacent footpaths;

- openings in the construction fencing to be provided for access to the site for construction vehicles;

- construction access driveways to be managed and controlled by qualified traffic controllers;

- traffic controllers to ensure that the construction access driveways are kept clear at all times, to allow trucks unobstructed access to the site;

- the management of the site works will be the responsibility of the site contractor/builder;

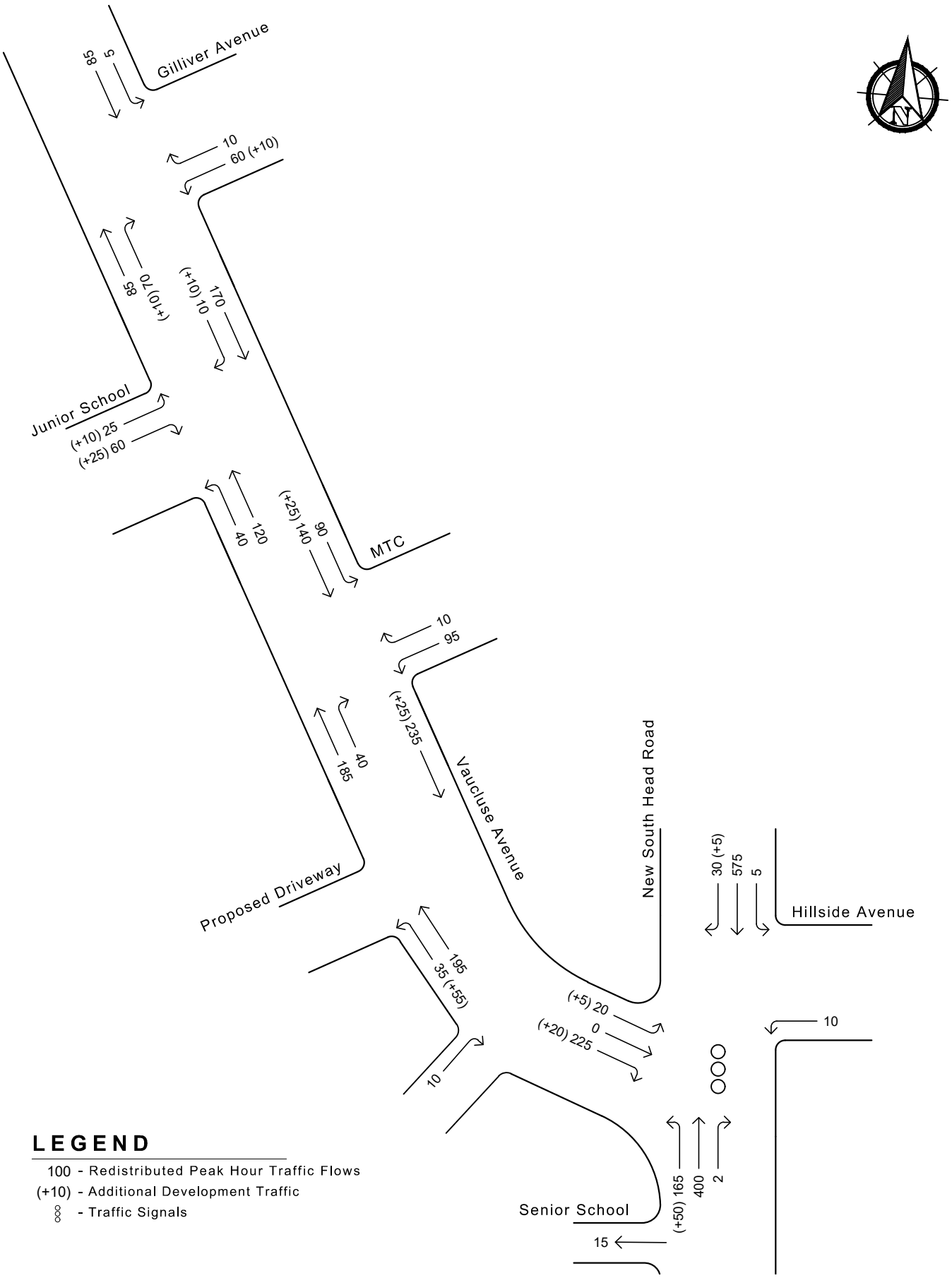
- pedestrian activity across the school access driveways will be managed and controlled by traffic controllers where required;

- pedestrian warning signs to be utilised in the vicinity of the site;

- pedestrian arrangements, construction activity and erection of safety fencing will be provided in accordance with SafeWork NSW requirements;

- the construction site manager/builder to be responsible for the management of the site, the movement of trucks on and off the site, signage detail, traffic management and the control of pedestrians/cyclists; and

- construction signage to be provided in accordance with Australian Standards and the TfNSW Manual for Traffic Control at Work Sites.



Redistributed weekday morning peak hour traffic flows plus development traffic

Figure 1

Colston Budd Rogers & Kafes Pty Ltd

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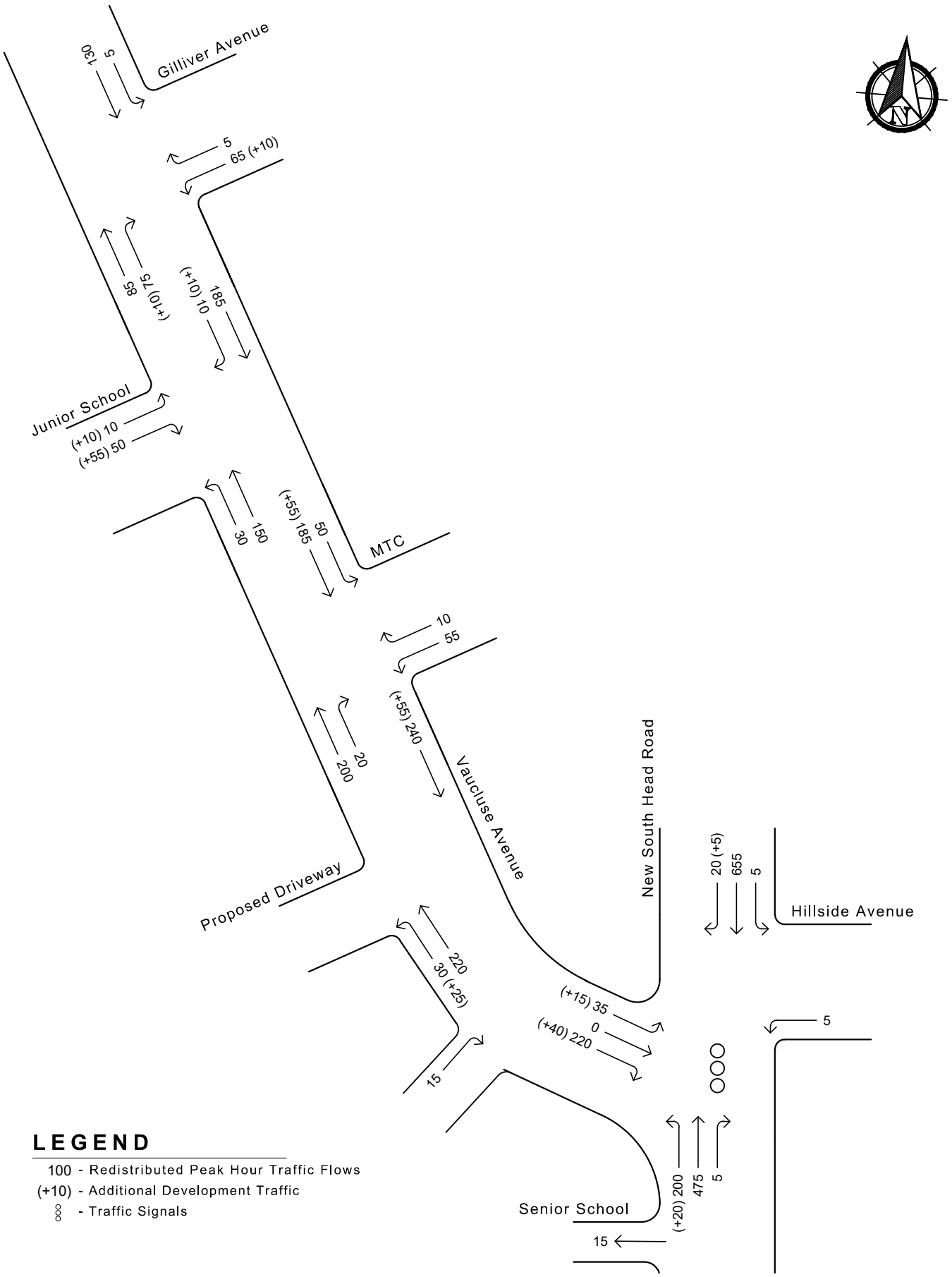

Redistributed weekday morning peak hour traffic flows plus development traffic

Figure 2

Colston Budd Rogers & Kafes Pty Ltd

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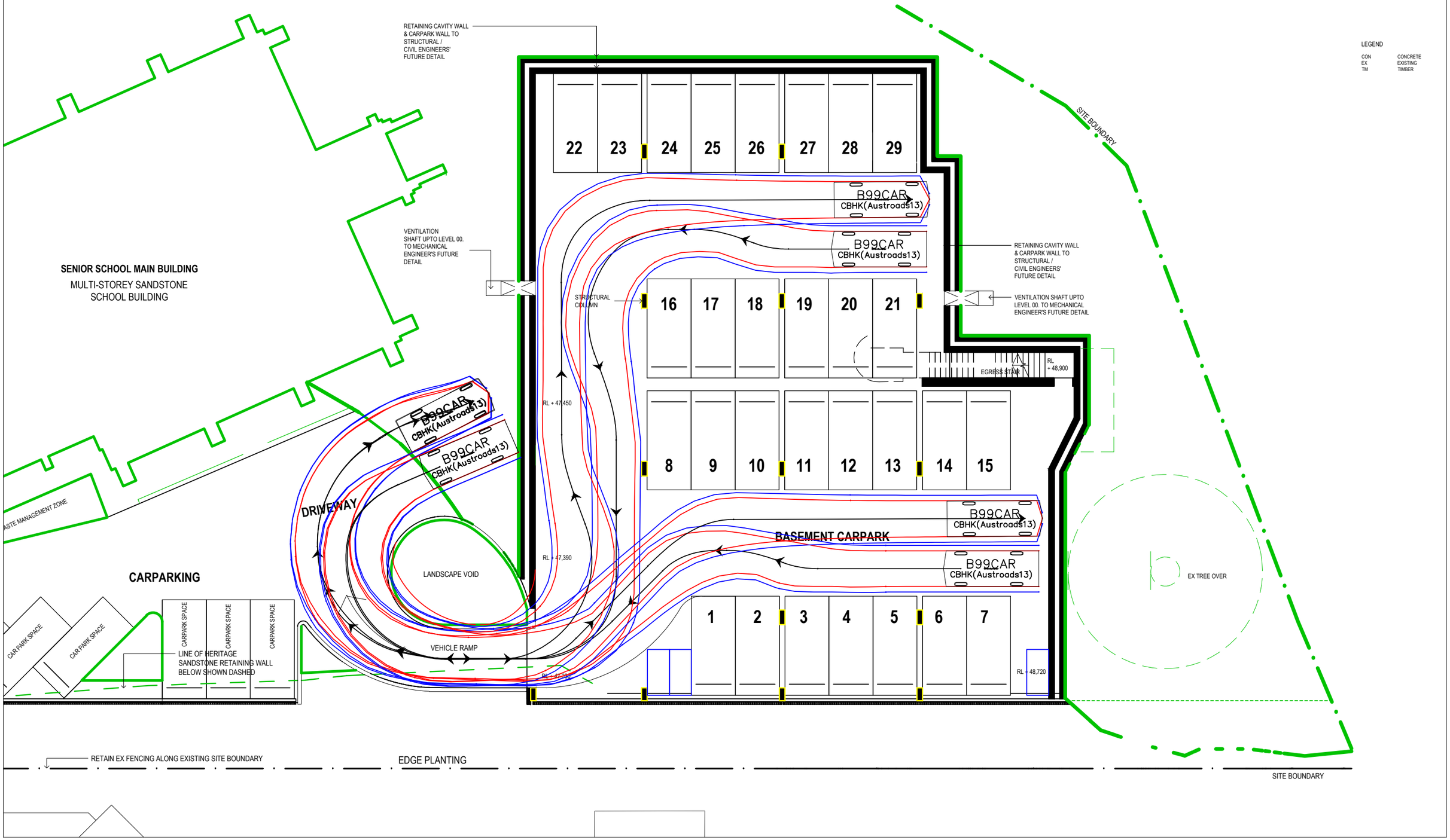

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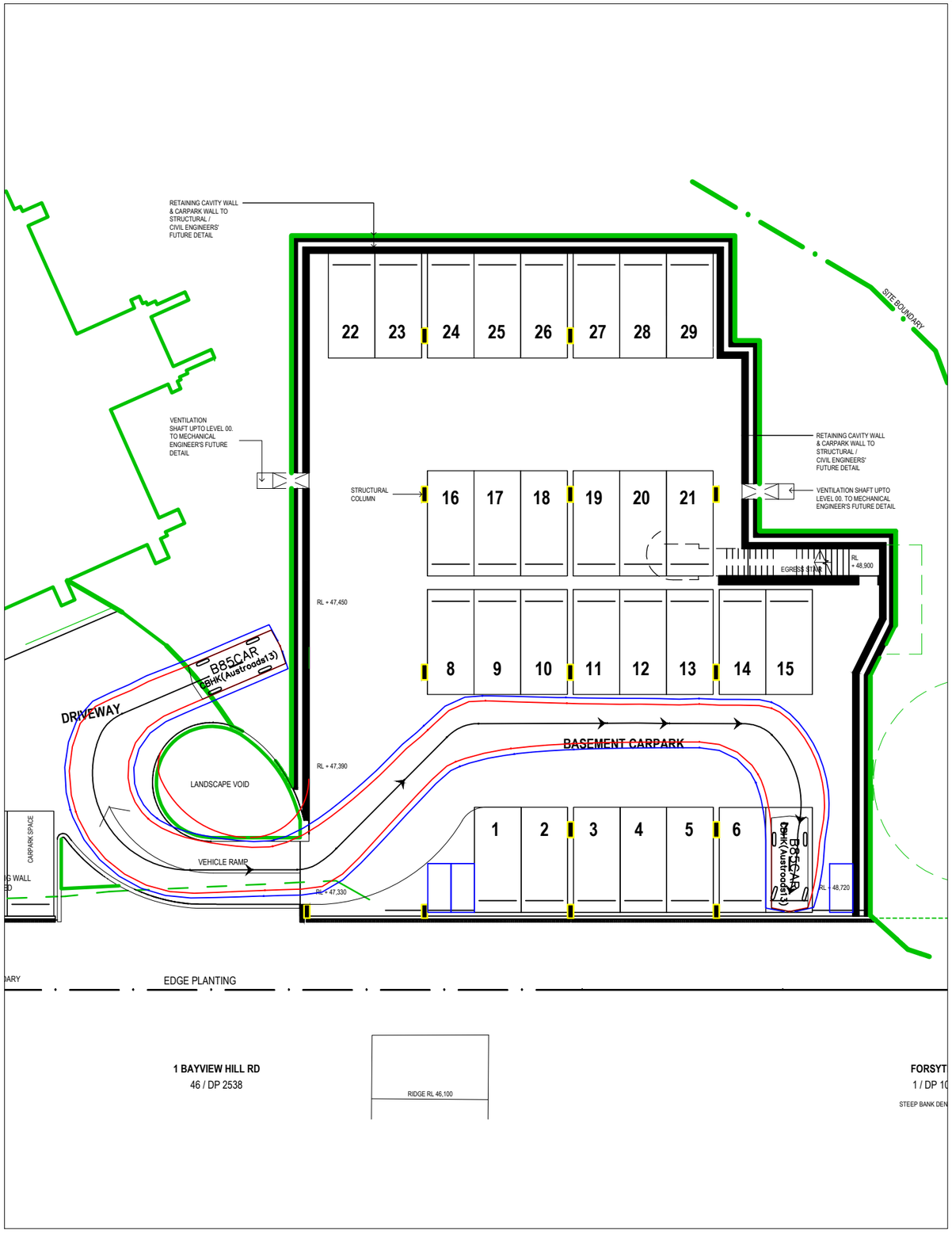
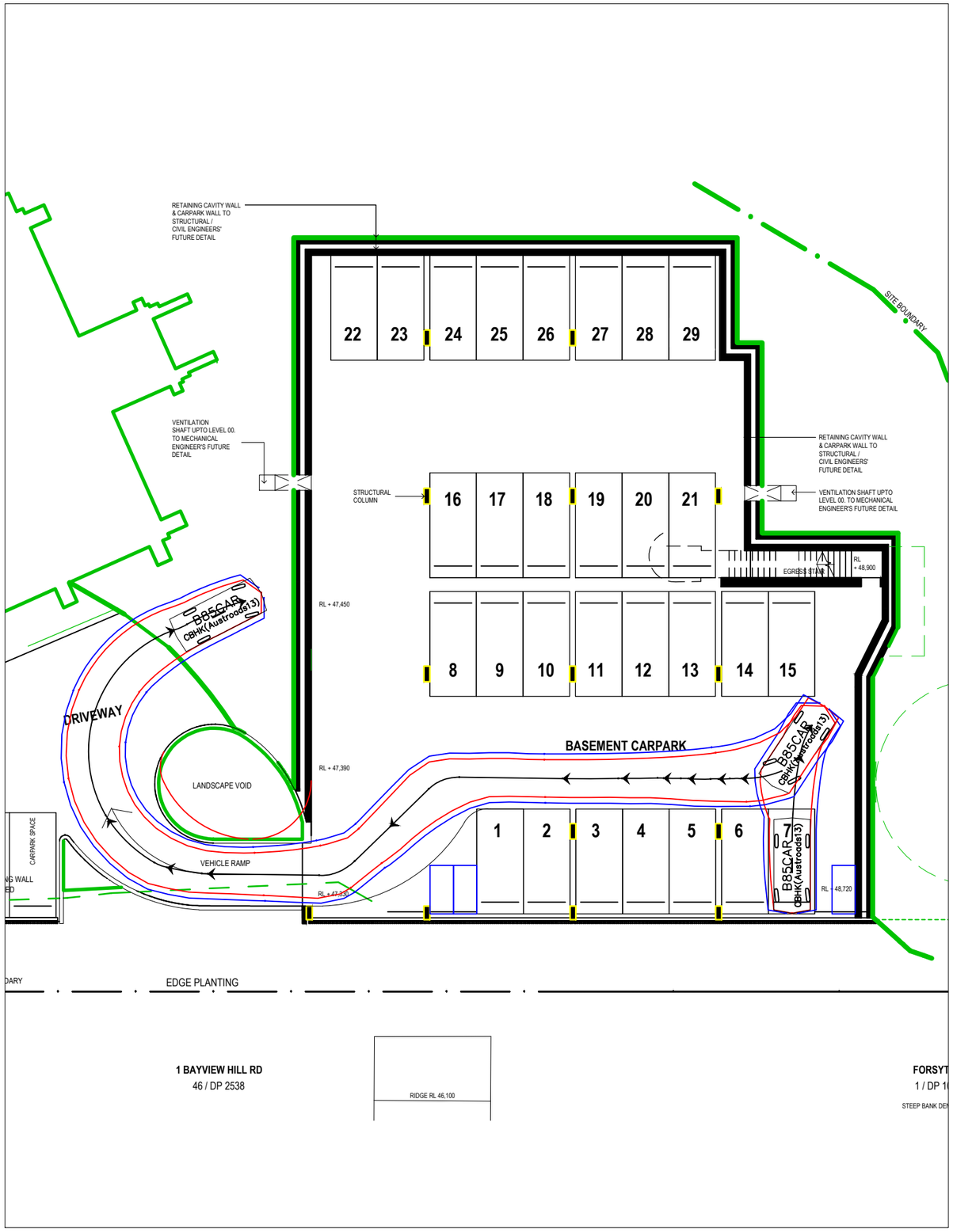
Swept Path of Vehicle Body
Swept Path of Clearance to Vehicle Body

B99 VEHICLE SWEPT PATHS - LEVEL LG

DRAWN BY CBRK Pty Ltd_mr Ref: 11096 14 MAY 2021

3





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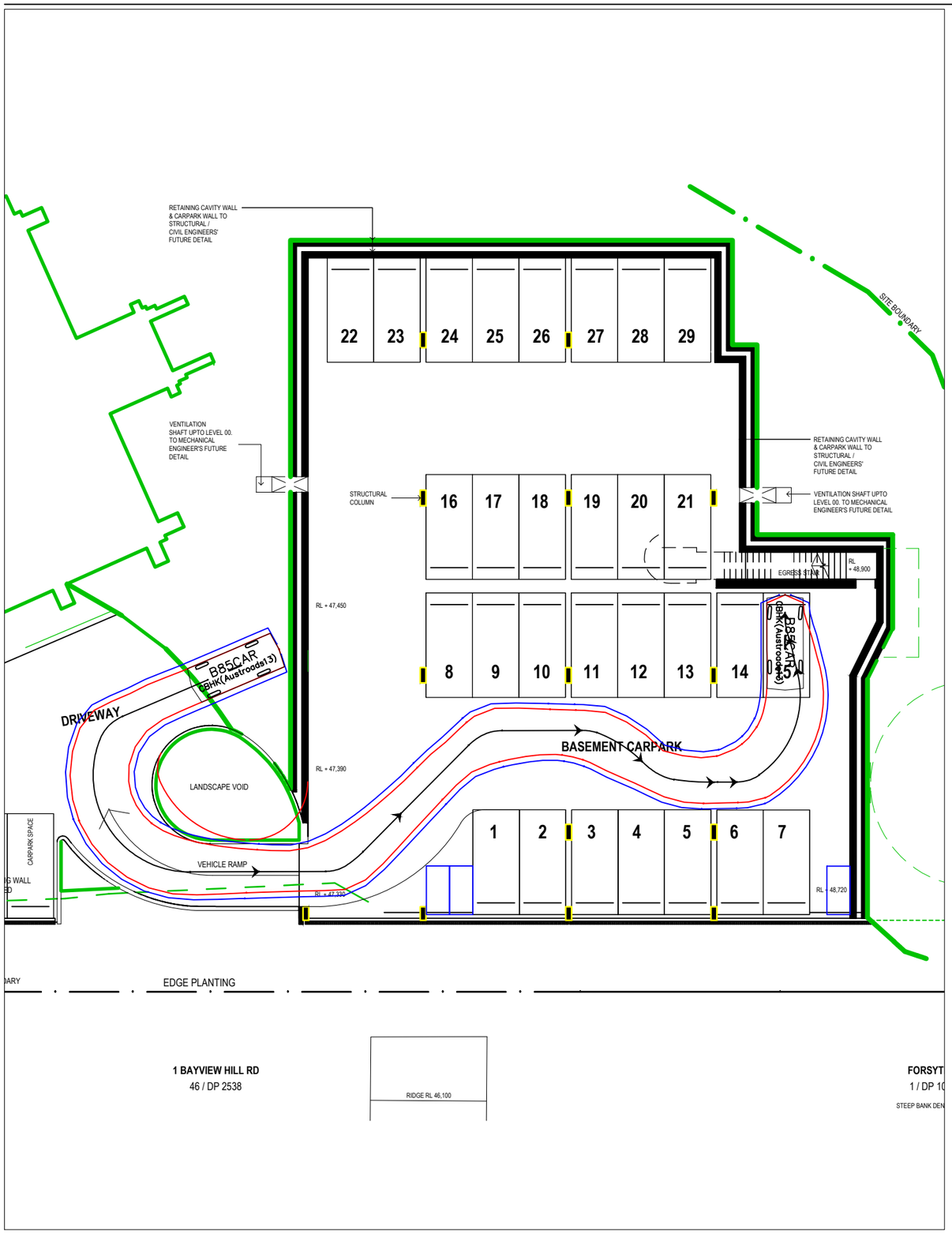
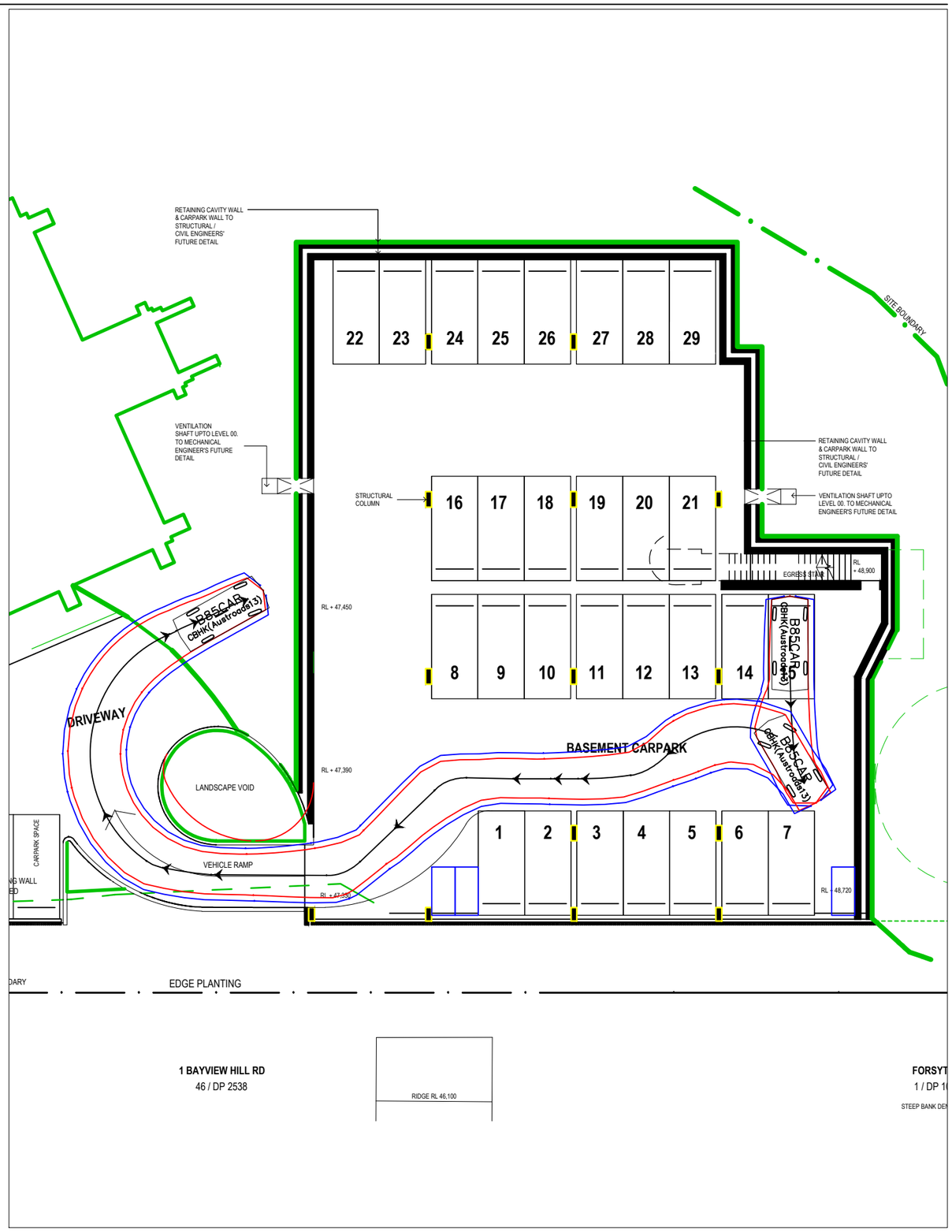
Swept Path of Vehicle Body
Swept Path of Clearance to Vehicle Body

B85 VEHICLE SWEPT PATHS - LEVEL LG

DRAWN BY CBRK Pty Ltd_mr Ref: 11096 14 MAY 2021

4





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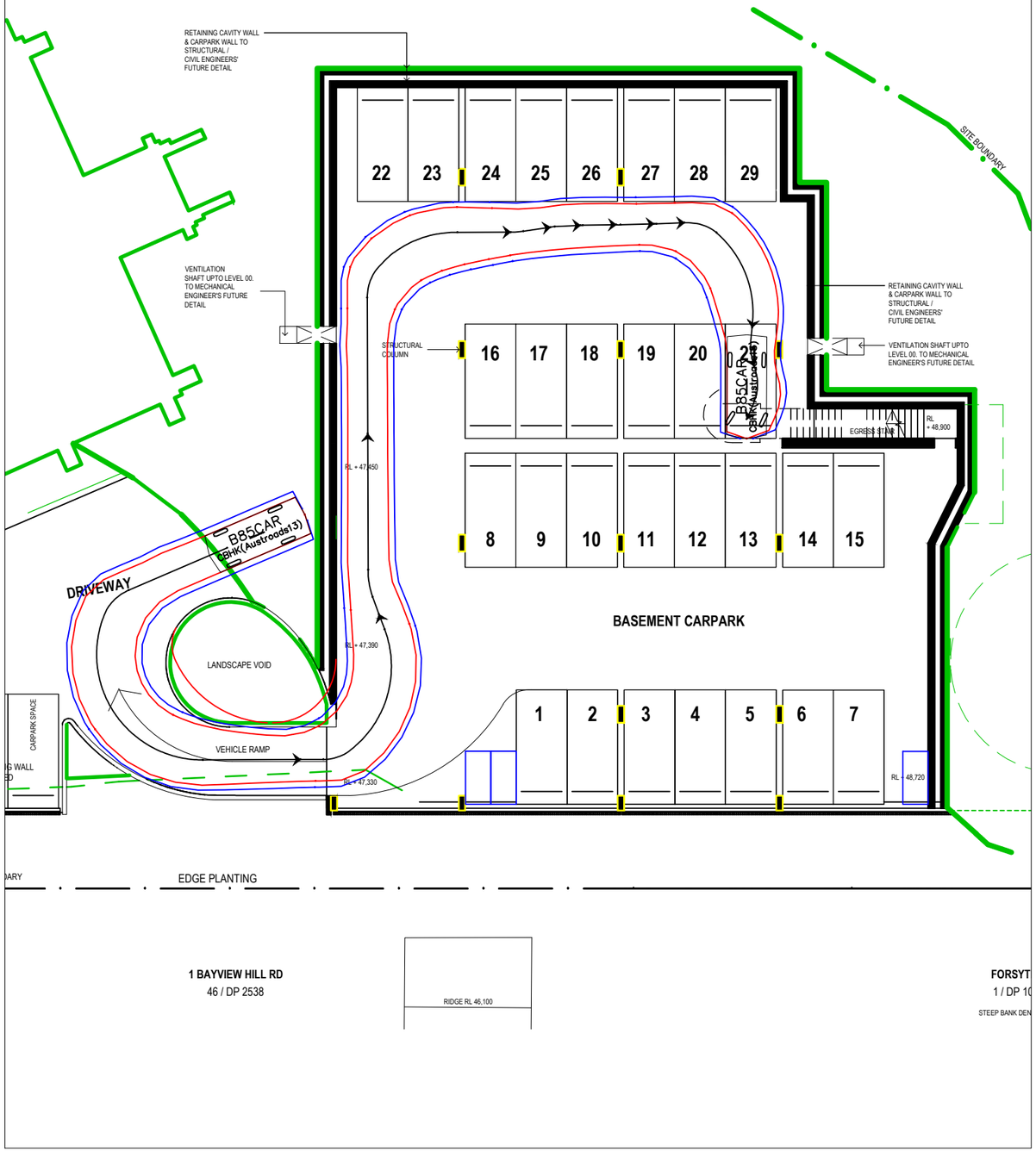
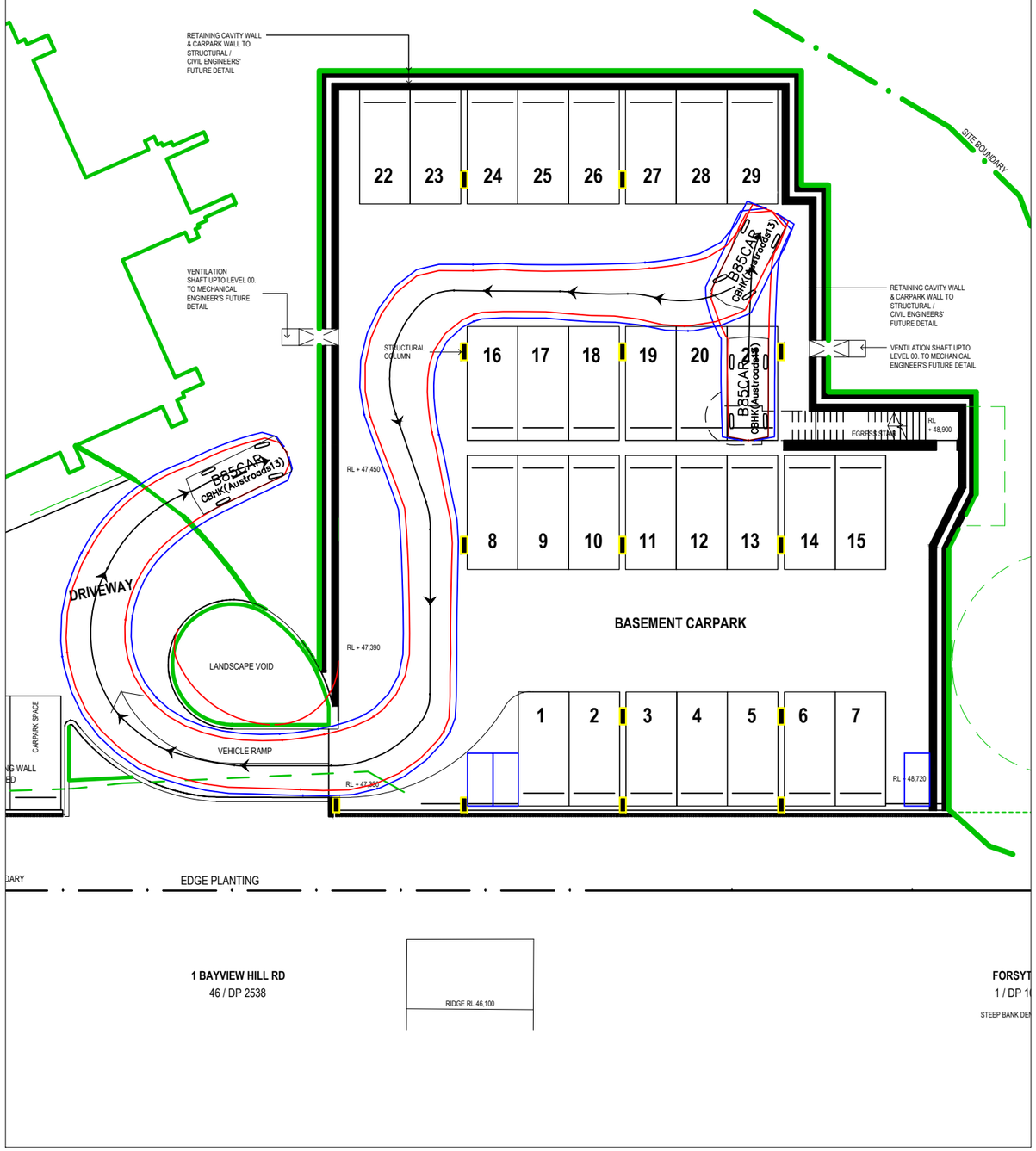
Swept Path of Vehicle Body
Swept Path of Clearance to Vehicle Body

B85 VEHICLE SWEPT PATHS - LEVEL LG

DRAWN BY CBRK Pty Ltd_mr Ref: 11096 14 MAY 2021

5





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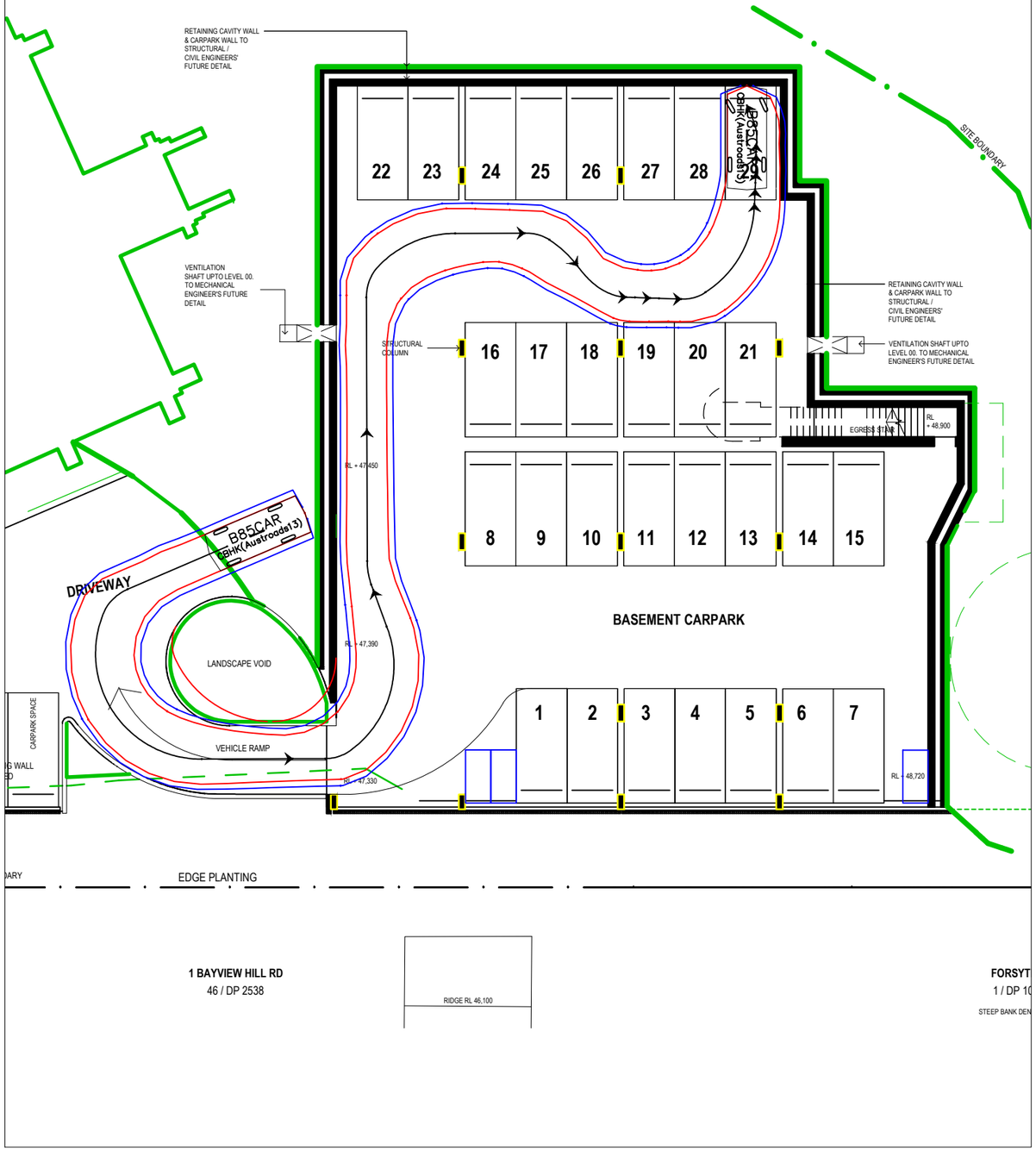
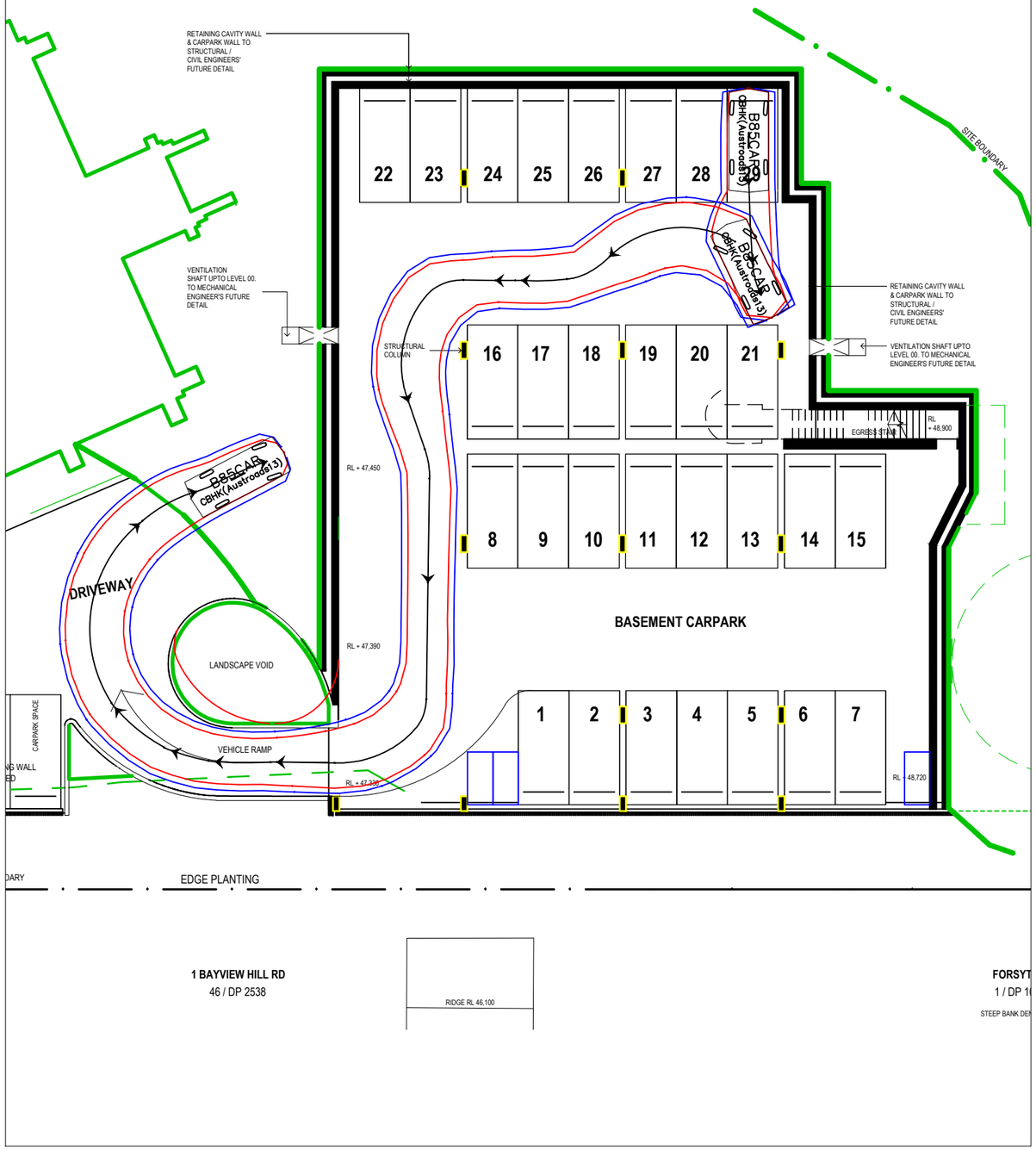
Swept Path of Vehicle Body
Swept Path of Clearance to Vehicle Body

B85 VEHICLE SWEPT PATHS - LEVEL LG

DRAWN BY CBRK Pty Ltd_mr Ref: 11096 14 MAY 2021

6





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Swept Path of Vehicle Body
Swept Path of Clearance to Vehicle Body

B85 VEHICLE SWEPT PATHS - LEVEL LG

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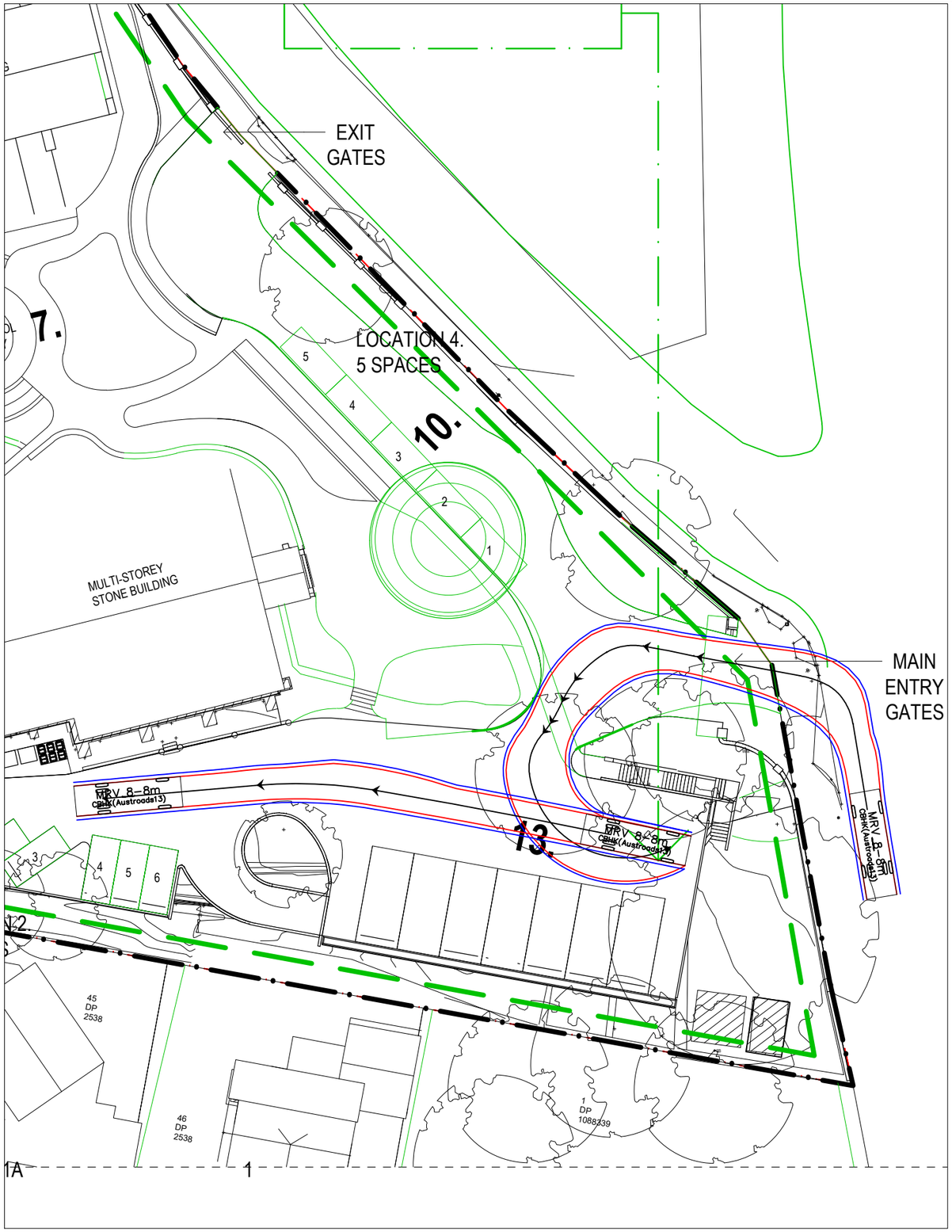
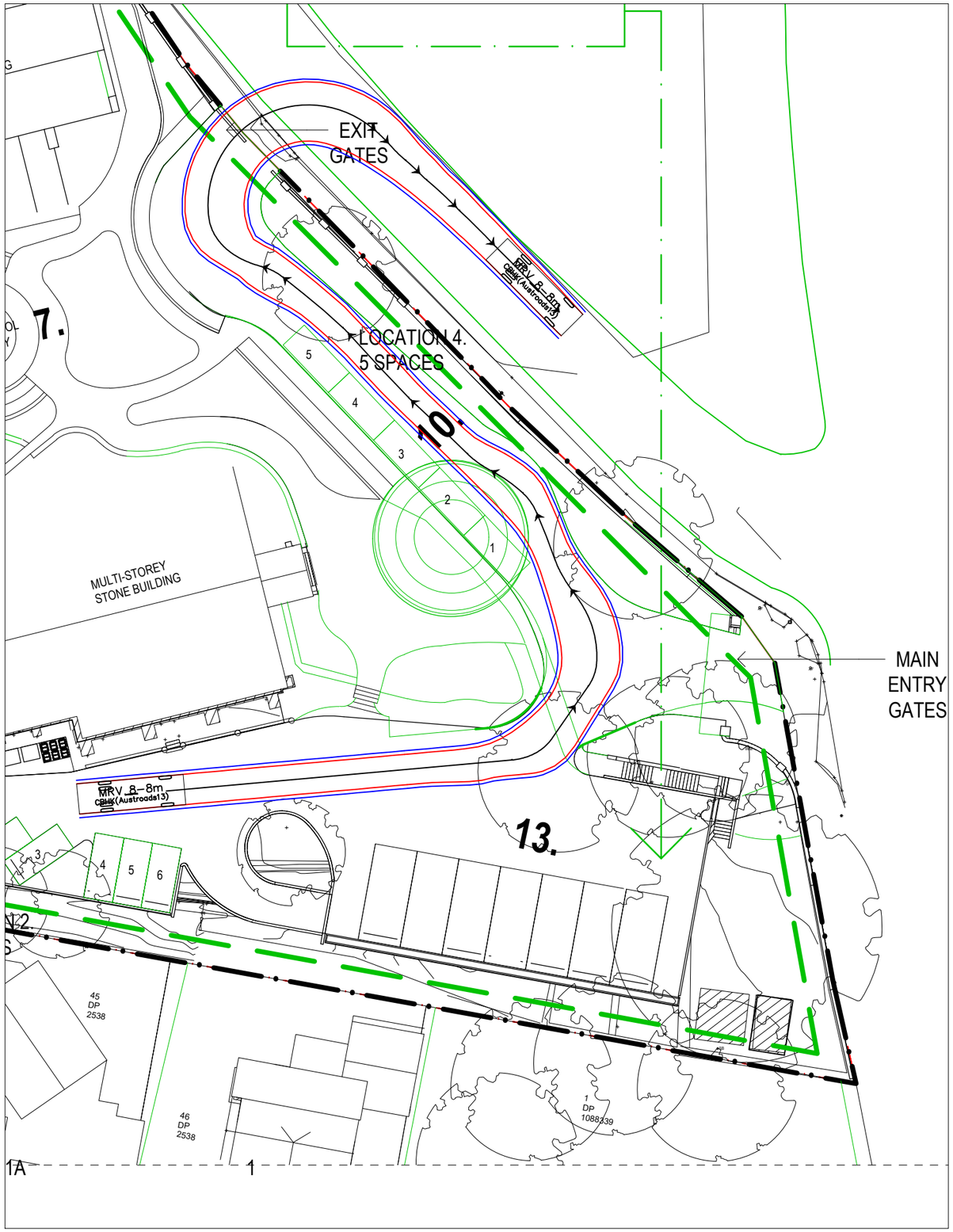
7





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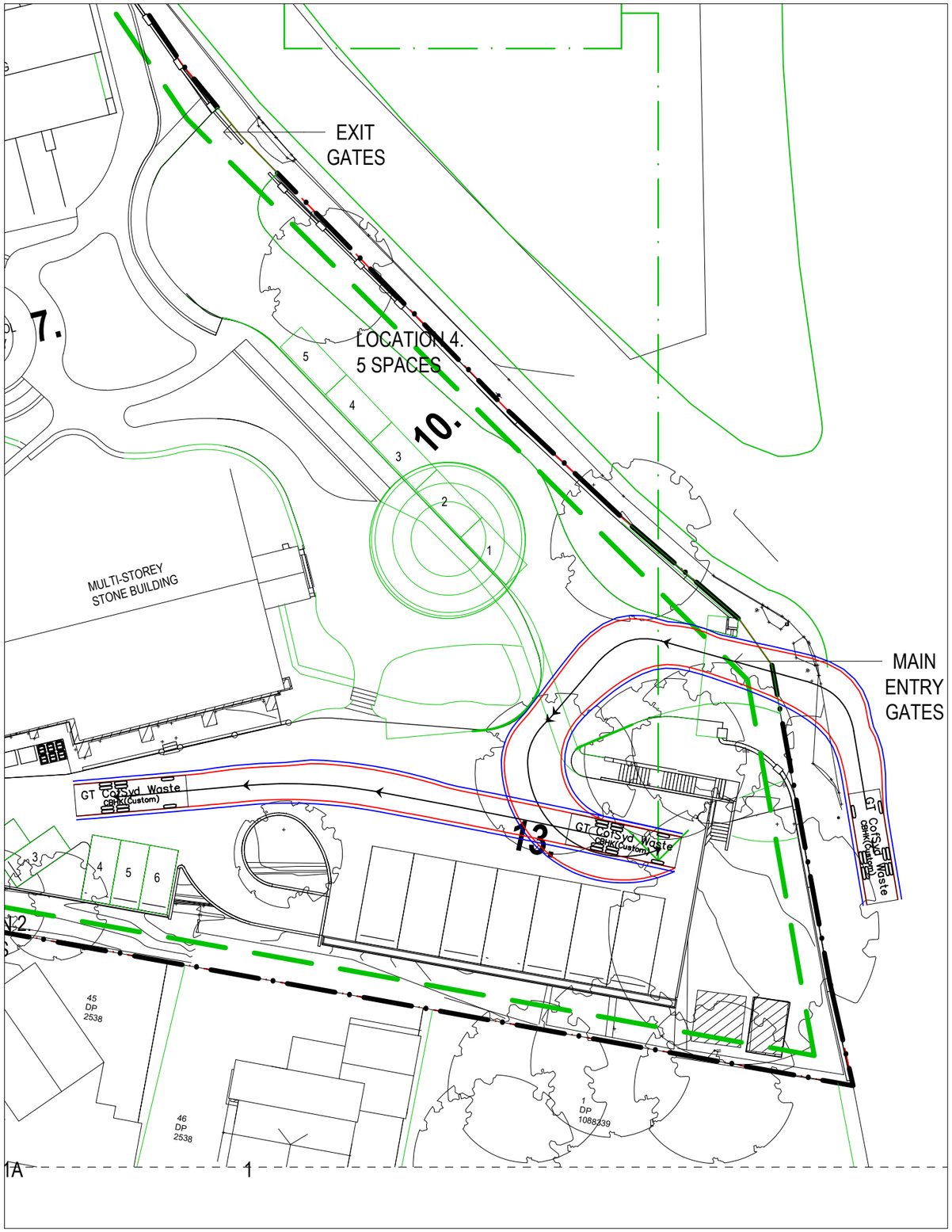
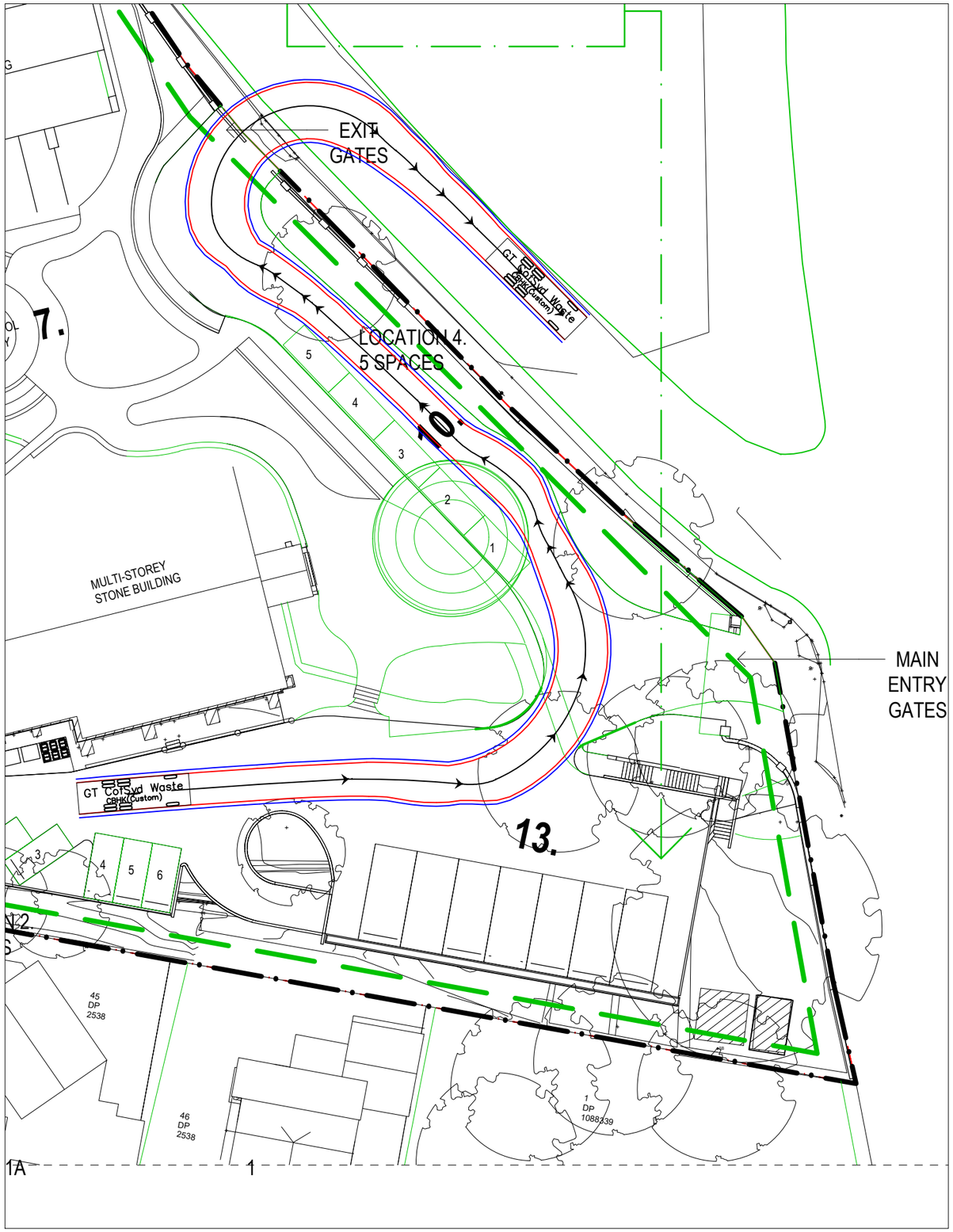
Swept Path of Vehicle Body
Swept Path of Clearance to Vehicle Body

8.8m MEDIUM RIGID VEHICLE SWEPT PATHS - LOADING

DRAWN BY CBRK Pty Ltd_mr Ref: 11096 17 June 2021

8





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Swept Path of Vehicle Body
Swept Path of Clearance to Vehicle Body

9.2m WASTE COLLECTION VEHICLE SWEPT PATHS - LOADING

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Swept Path of Vehicle Body
Swept Path of Clearance to Vehicle Body

B99 VEHICLE SWEPT PATHS - PICK UP/DROP OFF

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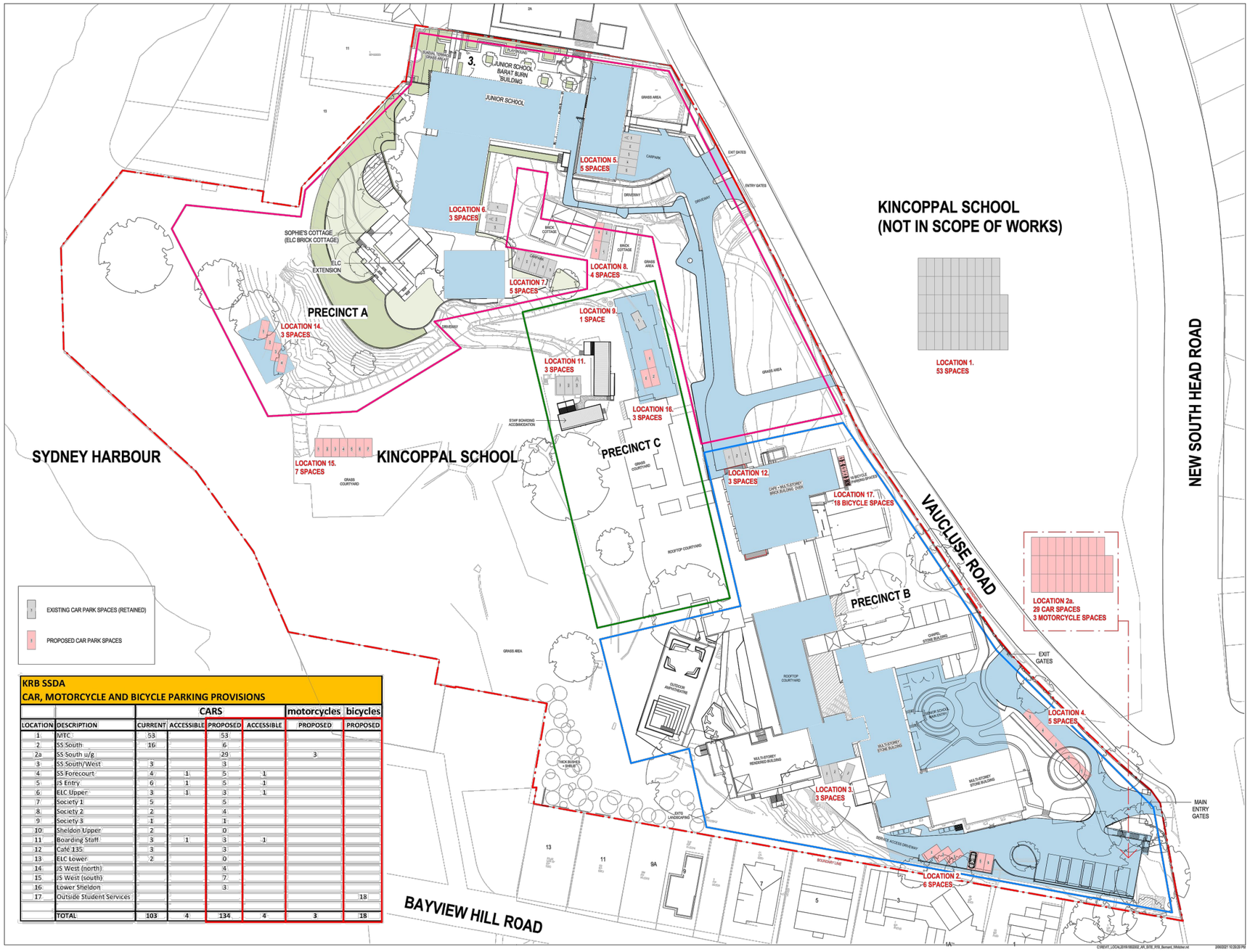


KRB SSDA
CAR, MOTORCYCLE AND BICYCLE PARKING PROVISIONS

		CARS				motorcycles	bicycles
LOCATION	DESCRIPTION	CURRENT	ACCESSIBLE	PROPOSED	ACCESSIBLE	PROPOSED	PROPOSED
1	MTC	53		53			
2	SS South	16		6			
2a	SS South u/g			29		3	
3	SS South/West	3		3			
4	SS Forecourt	4	1	5	1		
5	JS Entry	6	1	5	1		
6	ELC Upper	3	1	3	1		
7	Society 1	5		5			
8	Society 2	2		4			
9	Society 3	1		1			
10	Sheldon Upper	2		0			
11	Boarding Staff	3	1	3	1		
12	Café 135	3		3			
13	ELC Lower	2		0			
14	JS West (north)			4			
15	JS West (south)			7			
16	Lower Sheldon			3			
17	Outside Student Services						18
	TOTAL	103	4	134	4	3	18

BVN

NSW ARCHITECTS REGISTRATION BOARD / NOMINATED ARCHITECTS
6001 ABBIE SALVIN
8268 WACIOSCHKA TITCHKOSKY
7115 JULIANA ASHTON
7003 MATTHEW BLAIR
7101 PHILLIP RODDINGTON
4107 JAMES GROSE

Telephone +61 2 8297 7200
Facsimile +61 2 8297 7299
www.bvn.com.au

NOTE
CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF WORK OR PREPARATION OF SHOP DRAWINGS. DO NOT SCALE THIS DRAWING

ISSUE	DATE	FOR
1	04.06.21	SSDA ADDITIONAL INFORMATION

TRAFFIC ENGINEER
CBRK
TEL 02 9411 2411

CIVIL AND STRUCTURAL ENGINEERS
HENRY & HYAMS
TEL 02 9417 8400

URBAN PLANNER AND HERITAGE SPECIALIST
DESIGN 5
TEL 02 9319 1855

LANDSCAPE ARCHITECT
CAB CONSULTING
TEL 02 9997 1085

PROJECT MANAGER
MAHADY MANAGEMENT
MOB. 0411 510 073

CLIENT
KINCOPPAL - ROSE BAY

PROJECT
PRECINCT A, B, C

CNR NEW SOUTH HEAD ROAD & VAUCLUSE RD, VAUCLUSE NSW 2030

BVN PROJECT NUMBER
1802002

DRAWING KEY

TRUE NORTH PROJECT NORTH

GRAPHIC SCALE
0 2000 5000

SCALE
1 : 500@A1

STATUS
STATE SIGNIFICANT DEVELOPMENT APPLICATION

DRAWING
SITE - PROPOSED CARPARK PLAN

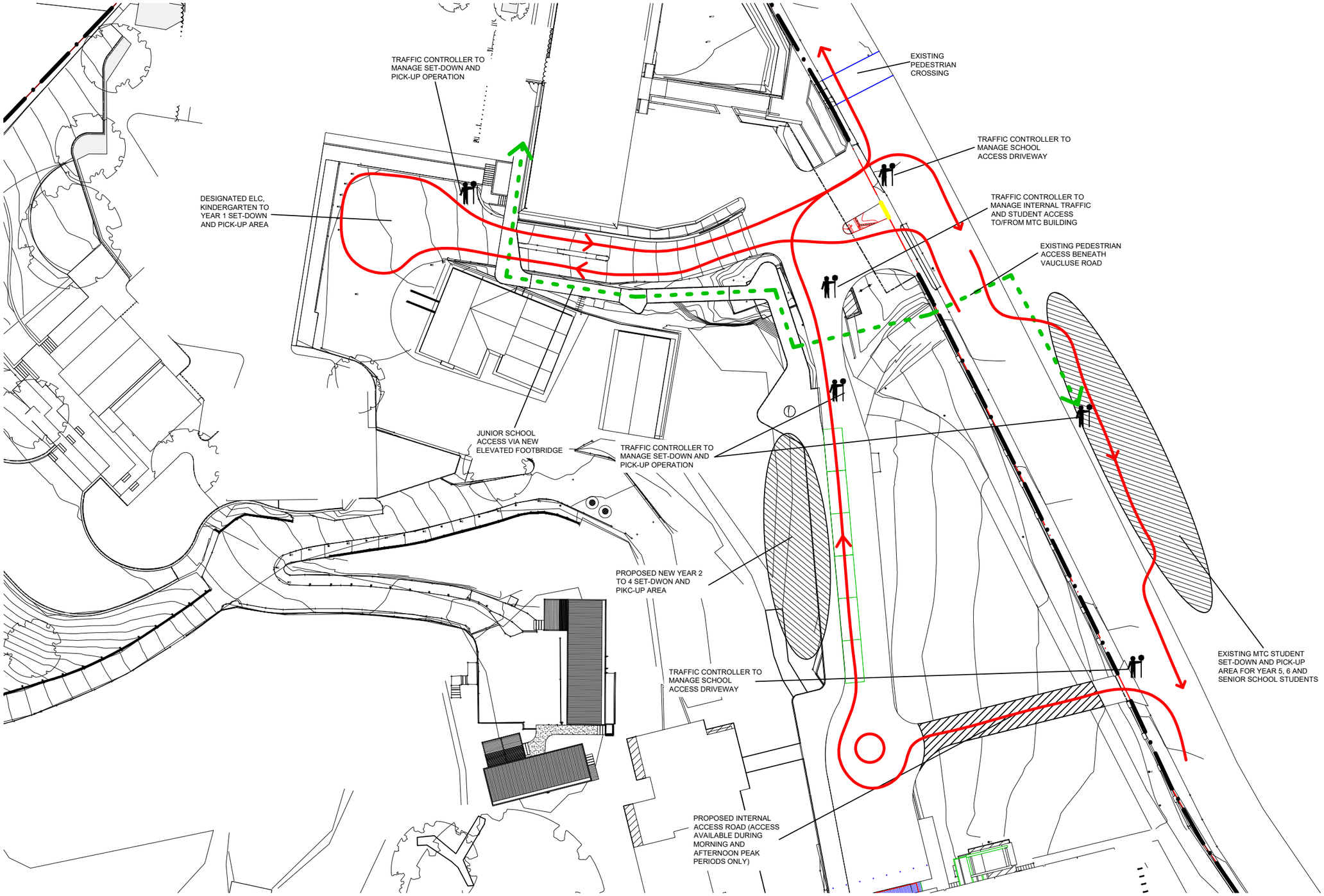
AR-ABC-A1-11 ISSUE 1

Car Parking Provision

Colston Budd Rogers & Kafes Pty Ltd

DRAWN BY CBRK Pty Ltd_hs Ref: 11096 14.05.2021

Figure 11



Student Pick-up and Drop-off Operational Management Plan

Colston Budd Rogers & Kafes Pty Ltd

DRAWN BY CBRK Pty Ltd_mc Ref: 11096 17.05.2021

Figure 12

APPENDIX A

SIDRA Analysis

MOVEMENT SUMMARY

Site: 101 [AM EX - New South Head Road - Vaucluse Road]

Existing Weekday Morning Peak Hour Traffic
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 91 seconds (Site Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: New South Head Road												
1a	L1	165	2.0	0.124	8.1	LOS A	2.3	16.6	0.35	0.60	0.35	36.6
2	T1	400	2.0	0.478	23.5	LOS B	11.4	81.5	0.80	0.68	0.80	31.8
Approach		565	2.0	0.478	19.0	LOS B	11.4	81.5	0.67	0.66	0.67	33.0
North: New South Head Road												
8	T1	580	2.0	0.413	23.8	LOS B	8.8	62.7	0.79	0.66	0.79	31.6
9b	R3	30	2.0	0.413	30.6	LOS C	7.7	54.9	0.83	0.71	0.83	30.9
Approach		610	2.0	0.413	24.2	LOS B	8.8	62.7	0.79	0.66	0.79	31.6
NorthWest: RoadName												
27b	L3	20	2.0	0.480	34.2	LOS C	9.2	65.6	0.89	0.79	0.89	29.7
29a	R1	225	2.0	0.480	32.4	LOS C	9.2	65.6	0.89	0.79	0.89	29.6
Approach		245	2.0	0.480	32.5	LOS C	9.2	65.6	0.89	0.79	0.89	29.6
All Vehicles		1420	2.0	0.480	23.6	LOS B	11.4	81.5	0.76	0.68	0.76	31.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	39.8	LOS D	0.1	0.1	0.94	0.94
P7	NorthWest Full Crossing	53	39.8	LOS D	0.1	0.1	0.94	0.94
All Pedestrians		105	39.8	LOS D			0.94	0.94

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [PM EX - New South Head Road - Vaucluse Road]

Existing Weekday Afternoon Peak Hour Traffic
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 91 seconds (Site Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: New South Head Road												
1a	L1	200	2.0	0.151	8.2	LOS A	2.9	20.6	0.35	0.61	0.35	36.5
2	T1	480	2.0	0.540	22.8	LOS B	13.8	98.5	0.80	0.69	0.80	32.0
Approach		680	2.0	0.540	18.5	LOS B	13.8	98.5	0.67	0.67	0.67	33.2
North: New South Head Road												
8	T1	655	2.0	0.422	22.3	LOS B	9.1	65.1	0.77	0.65	0.77	32.1
9b	R3	20	2.0	0.422	28.5	LOS C	8.7	62.1	0.81	0.69	0.81	31.6
Approach		675	2.0	0.422	22.5	LOS B	9.1	65.1	0.77	0.65	0.77	32.1
NorthWest: RoadName												
27b	L3	35	2.0	0.548	36.4	LOS C	10.0	71.2	0.92	0.80	0.92	29.2
29a	R1	220	2.0	0.548	34.6	LOS C	10.0	71.2	0.92	0.80	0.92	29.1
Approach		255	2.0	0.548	34.9	LOS C	10.0	71.2	0.92	0.80	0.92	29.1
All Vehicles		1610	2.0	0.548	22.7	LOS B	13.8	98.5	0.75	0.68	0.75	32.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	39.8	LOS D	0.1	0.1	0.94	0.94
P7	NorthWest Full Crossing	53	39.8	LOS D	0.1	0.1	0.94	0.94
All Pedestrians		105	39.8	LOS D			0.94	0.94

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [AM EX+Dev - New South Head Road - Vaucluse Road]

Existing Weekday Morning Peak Hour Traffic
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 90 seconds (Site Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: New South Head Road												
1a	L1	215	2.0	0.163	8.3	LOS A	3.1	22.3	0.36	0.61	0.36	36.5
2	T1	400	2.0	0.503	24.7	LOS B	11.7	83.1	0.82	0.70	0.82	31.5
Approach		615	2.0	0.503	18.9	LOS B	11.7	83.1	0.66	0.67	0.66	33.1
North: New South Head Road												
8	T1	580	2.0	0.452	25.2	LOS B	9.2	65.5	0.81	0.68	0.81	31.3
9b	R3	35	2.0	0.452	32.8	LOS C	7.8	55.4	0.87	0.74	0.87	30.4
Approach		615	2.0	0.452	25.7	LOS B	9.2	65.5	0.82	0.69	0.82	31.2
NorthWest: RoadName												
27b	L3	25	2.0	0.504	33.1	LOS C	10.0	71.2	0.88	0.79	0.88	30.0
29a	R1	245	2.0	0.504	31.3	LOS C	10.0	71.2	0.88	0.79	0.88	29.9
Approach		270	2.0	0.504	31.5	LOS C	10.0	71.2	0.88	0.79	0.88	29.9
All Vehicles		1500	2.0	0.504	24.0	LOS B	11.7	83.1	0.76	0.70	0.76	31.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	39.3	LOS D	0.1	0.1	0.94	0.94
P7	NorthWest Full Crossing	53	39.3	LOS D	0.1	0.1	0.94	0.94
All Pedestrians		105	39.3	LOS D			0.94	0.94

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [PM EX+Dev - New South Head Road - Vaucluse Road]

Existing Weekday Afternoon Peak Hour Traffic
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 91 seconds (Site Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: New South Head Road												
1a	L1	220	2.0	0.166	8.2	LOS A	3.2	22.9	0.36	0.61	0.36	36.5
2	T1	480	2.0	0.591	25.3	LOS B	14.6	104.1	0.85	0.72	0.85	31.3
Approach		700	2.0	0.591	20.0	LOS B	14.6	104.1	0.69	0.69	0.69	32.8
North: New South Head Road												
8	T1	655	2.0	0.485	25.4	LOS B	9.9	70.4	0.82	0.69	0.82	31.2
9b	R3	25	2.0	0.485	32.8	LOS C	9.2	65.5	0.87	0.74	0.87	30.4
Approach		680	2.0	0.485	25.6	LOS B	9.9	70.4	0.82	0.69	0.82	31.2
NorthWest: RoadName												
27b	L3	50	2.0	0.592	34.6	LOS C	12.0	85.5	0.91	0.81	0.91	29.6
29a	R1	260	2.0	0.592	32.8	LOS C	12.0	85.5	0.91	0.81	0.91	29.5
Approach		310	2.0	0.592	33.1	LOS C	12.0	85.5	0.91	0.81	0.91	29.5
All Vehicles		1690	2.0	0.592	24.7	LOS B	14.6	104.1	0.78	0.71	0.78	31.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	39.8	LOS D	0.1	0.1	0.94	0.94
P7	NorthWest Full Crossing	53	39.8	LOS D	0.1	0.1	0.94	0.94
All Pedestrians		105	39.8	LOS D			0.94	0.94

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [AM EX - Vaucluse Road - Gilliver Avenue]

Weekday Morning Peak Hour Traffic
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Vaucluse Road												
2	T1	85	2.0	0.088	0.2	LOS A	0.3	2.3	0.14	0.21	0.14	39.1
3	R2	70	2.0	0.088	3.8	LOS A	0.3	2.3	0.14	0.21	0.14	42.7
Approach		155	2.0	0.088	1.8	NA	0.3	2.3	0.14	0.21	0.14	40.6
East: Gilliver Avenue												
4	L2	60	2.0	0.041	3.7	LOS A	0.2	1.1	0.18	0.45	0.18	41.9
6	R2	10	2.0	0.041	4.4	LOS A	0.2	1.1	0.18	0.45	0.18	41.5
Approach		70	2.0	0.041	3.8	LOS A	0.2	1.1	0.18	0.45	0.18	41.8
North: Vaucluse Road												
7	L2	5	2.0	0.047	3.4	LOS A	0.0	0.0	0.00	0.03	0.00	40.1
8	T1	85	2.0	0.047	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	39.9
Approach		90	2.0	0.047	0.2	NA	0.0	0.0	0.00	0.03	0.00	39.9
All Vehicles		315	2.0	0.088	1.8	NA	0.3	2.3	0.11	0.21	0.11	40.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [PM EX - Vaucluse Road - Gilliver Avenue]

Weekday Afternoon Peak Hour Traffic
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Vaucluse Road												
2	T1	85	2.0	0.093	0.3	LOS A	0.4	2.5	0.18	0.22	0.18	39.0
3	R2	75	2.0	0.093	3.9	LOS A	0.4	2.5	0.18	0.22	0.18	42.6
Approach		160	2.0	0.093	2.0	NA	0.4	2.5	0.18	0.22	0.18	40.6
East: Gilliver Avenue												
4	L2	65	2.0	0.042	3.8	LOS A	0.2	1.2	0.23	0.45	0.23	41.8
6	R2	5	2.0	0.042	4.6	LOS A	0.2	1.2	0.23	0.46	0.23	41.4
Approach		70	2.0	0.042	3.9	LOS A	0.2	1.2	0.23	0.45	0.23	41.8
North: Vaucluse Road												
7	L2	5	2.0	0.070	3.4	LOS A	0.0	0.0	0.00	0.02	0.00	40.1
8	T1	130	2.0	0.070	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	39.9
Approach		135	2.0	0.070	0.1	NA	0.0	0.0	0.00	0.02	0.00	39.9
All Vehicles		365	2.0	0.093	1.7	NA	0.4	2.5	0.12	0.19	0.12	40.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [AM EX+Dev - Vaucluse Road - Gilliver Avenue]

Weekday Morning Peak Hour Traffic
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Vaucluse Road												
2	T1	85	2.0	0.094	0.2	LOS A	0.4	2.5	0.15	0.23	0.15	39.0
3	R2	80	2.0	0.094	3.8	LOS A	0.4	2.5	0.15	0.23	0.15	42.6
Approach		165	2.0	0.094	1.9	NA	0.4	2.5	0.15	0.23	0.15	40.7
East: Gilliver Avenue												
4	L2	70	2.0	0.047	3.7	LOS A	0.2	1.3	0.18	0.45	0.18	41.9
6	R2	10	2.0	0.047	4.5	LOS A	0.2	1.3	0.18	0.45	0.18	41.5
Approach		80	2.0	0.047	3.8	LOS A	0.2	1.3	0.18	0.45	0.18	41.8
North: Vaucluse Road												
7	L2	5	2.0	0.047	3.4	LOS A	0.0	0.0	0.00	0.03	0.00	40.1
8	T1	85	2.0	0.047	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	39.9
Approach		90	2.0	0.047	0.2	NA	0.0	0.0	0.00	0.03	0.00	39.9
All Vehicles		335	2.0	0.094	1.9	NA	0.4	2.5	0.11	0.23	0.11	40.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [PM EX+Dev - Vaucluse Road - Gilliver Avenue]

Weekday Afternoon Peak Hour Traffic
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Vaucluse Road												
2	T1	85	2.0	0.099	0.3	LOS A	0.4	2.8	0.19	0.24	0.19	38.9
3	R2	85	2.0	0.099	3.9	LOS A	0.4	2.8	0.19	0.24	0.19	42.5
Approach		170	2.0	0.099	2.1	NA	0.4	2.8	0.19	0.24	0.19	40.7
East: Gilliver Avenue												
4	L2	75	2.0	0.047	3.8	LOS A	0.2	1.3	0.23	0.46	0.23	41.8
6	R2	5	2.0	0.047	4.7	LOS A	0.2	1.3	0.23	0.46	0.23	41.4
Approach		80	2.0	0.047	3.9	LOS A	0.2	1.3	0.23	0.46	0.23	41.8
North: Vaucluse Road												
7	L2	5	2.0	0.070	3.4	LOS A	0.0	0.0	0.00	0.02	0.00	40.1
8	T1	130	2.0	0.070	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	39.9
Approach		135	2.0	0.070	0.1	NA	0.0	0.0	0.00	0.02	0.00	39.9
All Vehicles		385	2.0	0.099	1.8	NA	0.4	2.8	0.13	0.21	0.13	40.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

APPENDIX B

KRB Bus Timetables

KINCOPPAL – ROSE BAY
SCHOOL OF THE SACRED HEART

Malabar/Maroubra/Coogee/Bronte/Bondi/KRB – Return Service

Morning

7.20am Anzac Pde, Little Bay (Bus stop nr Little Bay Cellars)

7.30am Malabar Shops (Cnr Franklin St & Anzac Pde)

7.35am Maroubra Rd, Maroubra (Bus stop cnr Flower St)

7.38am Malabar Rd, Sth Coogee (Bakehouse bus stop just before Moverly Rd)

7.40am Arden St, South Coogee (Front of bus stop at start of Arden St)

7.44am Arden St, Coogee (Bus stop just before Carr St)

7.47am Arden St, Coogee (Bus stop nr Coogee Oval, closest to roundabout)

7.50am Arden St, Coogee (Over top of hill - after Alison Rd roundabout)

7.52am Arden St, Clovelly (Bus stop just before Brandon St)

8.05am Alfred St, Tamarama (Bus stop just before Birrell St)

8.15 am KRB

Afternoon

3.20pm Depart KRB

3.45pm Alfred St, Tamarama (Bus stop facing Belgrave St)

3.47pm Belgrave St Shops (Cnr Murray St)

3.52pm MacPherson St, Bronte (Just before Lugar St)

3.56pm Arden St, Coogee (Bus stop just before Burnie St)

3.58pm Arden St, Coogee (Bus stop just before Alison Rd)

4.00pm Arden St Coogee (Nr car park just after roundabout)

4.02pm Arden St Coogee (Just before Carr St)

4.04pm Arden St, Sth Coogee (Just before Malabar Rd)

4.05pm Malabar Rd, Sth Coogee (Just after Napper St)

4.08pm Maroubra Rd, Maroubra (Just after French St)

4.10pm Maroubra Rd, Maroubra (Bus stop just before Anzac Pde)

4.15pm Malabar Shops (Just past Franklin St)

4.20pm Anzac Pde, Little Bay (Bus stop near Little Bay Cellars)

KRB/Bondi/Bronte/Coogee/Maroubra//Malabar/Little Bay – 5.15pm Service

A late service operates from KRB on Monday, Tuesday, Wednesday and Thursday.

It follows the same route, on a needs basis, as the 3.20pm service.

This service does **NOT** operate on Fridays.

Please note that the bus leaves at 5.15pm sharp!

*******Please note that all times indicated are DEPARTURE times*******

March 2021

KINCOPPAL – ROSE BAY
SCHOOL OF THE SACRED HEART

Eastgardens/Pagewood/Kingsford/Randwick/Tamarama /KRB - Return Service	
Morning	**Afternoon**
7.30am Bus interchange – Lower Level -Westfields - Bunnerong Rd, Eastgardens 7.35am Bunnerong Rd, Pagewood, (Bus stop near Wark Ave) 7.40am Rainbow St, Kingsford (Bus stop near Kennedy St) 7.45am Avoca St, Randwick (Bus stop near Cowper St) 7.50am Carrington Rd, Randwick (Bus stop near Pine St) 8.00am Alfred St, Tamarama (Bus stop near Birrell St) 8.10am Glenayr Ave Bondi (Bus stop just after pedestrian crossing) 8.20 am KRB	3.20pm Depart KRB 3.40pm Alfred St, Tamarama (Bus stop near Birrell St) 3.50pm Carrington Rd, Randwick (Bus stop near Pine St) 3.55pm Avoca St, Randwick (Bus stop near Cowper St) 4.00pm Rainbow St, Kingsford (Bus stop near Kennedy St) 4.05pm Bunnerong Rd, Pagewood, (Bus stop near Mason St) 4.10pm Bus interchange – Lower Level -Westfields - Bunnerong Rd, Eastgardens

*******Please note that all times indicated are DEPARTURE times*******

March 2021

KINCOPPAL – ROSE BAY
SCHOOL OF THE SACRED HEART

Stanmore/Annandale/Rozelle/Balmain/City/Woollahra /KRB - Return Service	
Morning 7.05am 170 Albany St, Stanmore 7.20am Terry St, Rozelle (Bus stop near Victoria Rd) 7.25am Darling St, Balmain (Opp. Post Office) 7.40am King Street, Sydney (Near Louis Vuitton) 7.50am Oxford St, Paddington (Cnr of Glenmore Rd) 7.52am Oxford St, Paddington (Outside Paddington RSL) 7.55am Oxford St & William St, Woollahra 8.05am New South Head Rd, Double Bay (Opp. Sheaf Hotel) 8.15am Arrive KRB	**Afternoon** 3.20pm Depart KRB 3.35pm New South Head Rd, Double Bay (After Knox St intersection) 3.40pm New South Head Rd, Edgecliff (Just before pedestrian lights at Edgecliff Station/Centre) 3.50pm William St, Sydney (Stop between Riley & Yurong St) 3.55pm Macquarie St, Sydney (At Martin Place) 4.10pm Market St, Sydney (Outside State Theatre) 4.20pm Darling St, Balmain (Outside Post Office) 4.25pm Terry St, Rozelle (Bus stop near Victoria Rd) 4.30pm Darling St, Rozelle (Bus stop near Victoria Rd) 4.40pm 170 Albany St, Stanmore

KINCOPPAL – ROSE BAY
SCHOOL OF THE SACRED HEART

Hunters Hill/Lane Cove/Greenwich/KRB – Return Service	
Morning	**Afternoon**
7.05am Valentia St, Hunters Hill (Bus stop near Woolwich Wharf)	3.20pm Depart KRB
7.10am. Woolwich Rd, Hunters Hill (Bus stop near Wybalena Rd)	3.45pm Greenwich Rd, Greenwich (Corner Oscar St)
7.15am Durham St, Hunters Hill (Near Church St)	3.50pm Northwood Rd, Longueville, (Bus stop near Fleming St)
7.20am River Rd West, Riverview (Bus stop near corner of Fox St)	3.52pm Arabella St, Longueville (Outside No 38)
7.30am Kenneth St, Longueville (Cnr Francis)	3.55pm Christina St, Longueville (Cnr Kenneth St)
7.35am Greenwich Rd, Greenwich (Corner Evelyn St)	4.03pm River Rd West, Riverview (Bus stop near Tambourine Bay Rd.)
8.00am New South Head Rd, Double Bay (Bus stop near Knox St) (Only if required)	4.10pm Exit ramp Hunters Hill (Before Church St)
8.15am KRB	4.15pm Woolwich Rd, Hunters Hill (Bus stop near Wybalena Rd)
	4.20pm Valentia St, Hunters Hill (Bus stop near Woolwich Wharf)

*******Please note that all times indicated are DEPARTURE times*******

March 2021

KINCOPPAL – ROSE BAY
SCHOOL OF THE SACRED HEART

Willoughby/Northbridge/Cammeray/Paddington/KRB – Return Service	
Morning	**Afternoon**
7.20am High St, Willoughby (Near St Thomas' Church)	3.20pm Depart KRB
7.25am Eastern Valley Way, Castlecrag (Bus stop before lights near Edinburgh Rd)	3.40pm Ocean St, Woollahra (Bus stop before Wellington St)
7.30am Sailors Bay Rd, Northbridge (Bus stop after roundabout at Strathallan Ave)	3.45pm Queen St, Woollahra (Bus stop cnr Dornhauer Lane)
7.32 Sailors Bay Rd, Northbridge (Bus stop after roundabout at Woonona, southern side of road)	3.50pm Oxford St, Paddington (Bus stop before Paddington Public School)
7.40am Amherst St, Cammeray (Bus stop near corner of Miller St, on Eastern side)	3.52pm Oxford St, Paddington (Bus stop before Oatley Rd)
7.55am Oxford St & William St, Woollahra	3.55pm Moore Park Rd, Moore Park (Pedestrian crossing near Greens Rd)
8.00am Ocean St, Woollahra (Opp. Chiswick Restaurant)	3.50pm Miller St, Cammeray (Outside Cammeray shops)
8.05am Stand M – Edgecliff Centre Bus Interchange	3.55pm Strathallan Ave, Northbridge (Stop before cnr of Sailors Bay Rd)
8.00am New South Head Rd, Double Bay (Bus stop near Knox St)	4.05pm Eastern Valley Way, Castlecrag (Over Edinburgh Rd lights)
8.15am KRB	4.10pm High St, Willoughby (Near St Thomas' Church)

March 2021

KINCOPPAL – ROSE BAY
SCHOOL OF THE SACRED HEART

Earlwood/Marrickville/Paddington/Woollahra/Bondi/KRB – Return Service	
Morning	**Afternoon**
7.00am Homer St, Earlwood (Bus stop outside No. 27)	3.20pm Depart KRB
7.10am Llewellyn St, Marrickville (Near corner of Juliett St)	3.35pm Nth Bondi (Bus Terminus)
7.22am O'Dea Ave, Zetland (Bus stop near Sam Sing St)	3.36pm Campbell Pde, Bondi (Just before Curlewis St)
7.26am Todman Ave, Kensington (Bus stop before Baker St)	3.40pm Bondi Rd, Bondi (Bus stop near Watson St just before fruit shop)
7.30am Todman Ave, Kensington (Bus stop corner Balfour Rd)	3.55pm Cook Rd, Centennial Park (Bus stop after Darvall St)
7.40am Cook Rd, Centennial Pk (Bus stop before Darvall St)	4.05pm Todman Ave Kensington (Bus stop cnr Anzac Pde)
7.52am Bondi Rd, Bondi (Bus stop after Penkivil St)	4.07pm Todman Ave, Kensington (Bus stop before Balfour Rd)
7.56am Campbell Pde Nth Bondi (Cnr Roscoe St Mall)	4.10pm Todman Ave, Kensington (Bus stop cnr Baker St)
8.00am Campbell Pde, North Bondi (Bus zone after Brighton Boulevard)	4.15pm O'Dea Ave, Zetland (Bus stop near Sam Sing St)
8.15am KRB	4.30pm Llewellyn St, Marrickville (Near Juliett St)
	4.40pm Homer St, Earlwood (Near Undercliffe Rd)

*******Please note that all times indicated are DEPARTURE times*******

March 2021

KINCOPPAL – ROSE BAY
SCHOOL OF THE SACRED HEART

Edgecliff Station/William St/Macquarie St/Circular Quay – 5.15pm Service
A late service operates from KRB on Monday, Tuesday, Wednesday, and Thursday. This service does **NOT** operate on Fridays. 5.25pm New South Head Rd, Edgecliff (Bus zone outside the Edgecliff Centre) 5.35pm William St, Sydney (Bus zone near Yurong St) 5.40pm Macquarie St, Sydney (Bus zone near Martin Place) 5.45pm Phillip St, Sydney (Bottom of Phillip St, at the forecourt of Circular Quay) **Please note that the bus leaves at 5.15pm sharp!**

*******Please note that all times indicated are DEPARTURE times*******

March 2021

KINCOPPAL – ROSE BAY
SCHOOL OF THE SACRED HEART

Seaforth/Balmoral/Mosman/Cremorne/Neutral Bay/KRB – Return Service	
Morning	**Afternoon**
7.05am: Seaforth, Sydney Rd, (Bus stop outside Taste of Belgium) (Southern Kerb)	3.20pm Depart KRB
7.10am Spit Rd, Beauty Point (Bus stop near Medusa St)	3.50pm Murdoch St, Cremorne (Bus stop near Bannerman Rd) (Western Kerb)
7.13am: Moruben Rd, Mosman (Bus stop before roundabout) (Eastern Kerb)	3.55pm Spofforth St Cremorne (Bus stop near Brierley St) (Western Kerb)
7.19am Bradleys Head Rd Mosman (Bus stop Cnr King Max St) (Eastern Kerb)	4.00pm Avenue Rd Mosman (Bus stop outside BP service station) (Northern Kerb)
7.20am Bradleys Head Rd (Bus stop near Thompson St)	4.02pm Prince Albert St, Mosman (Near Queen St) (Eastern Kerb)
7.21am Prince Albert St, Mosman (Bus stop near Lennox St)	4.03pm Prince Albert St, Mosman (Near Thompson St) (Eastern Kerb)
7.22am Queen St Mosman (Outside Queenwood Tennis Court) (Southern Kerb)	4.05pm Bradleys Head Rd, (Bus stop near Thompson St)
7.25am: Spofforth St Cremorne (Bus stop near Brierley St) (Eastern Kerb)	4.08pm King Max St Mosman (Near Bradleys Head Rd) (Western Kerb)
7.28am Murdoch St, Cremorne (Bus stop prior to Bannerman Rd) (Eastern Kerb)	4.10pm Moruben Rd, Mosman (Bus stop near Awaba St) (Western Kerb)
7.40am St Mary's Cathedral (Funeral vehicles zone)	4.15pm Spit Rd, Beauty Point (Bus stop outside Beauty Point Catholic Church)
7.50am Bus Interchange above Edgecliff Centre (Stand M)	4.20pm Seaforth, Sydney Rd (Bus stop outside Taste of Belgium) (Southern Kerb)
8.05am KRB	

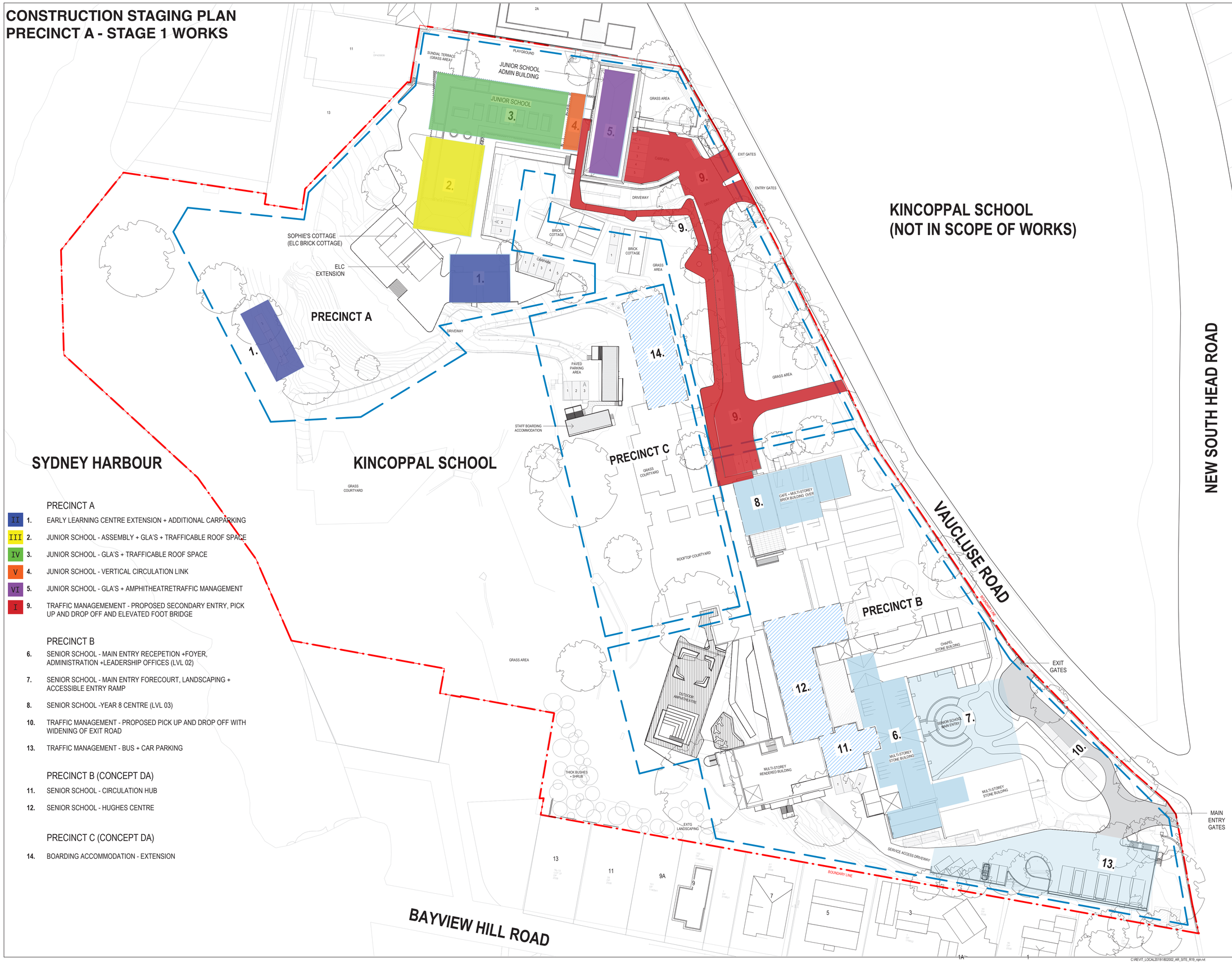
*******Please note that all times indicated are DEPARTURE times*******

March 2021

APPENDIX C

Construction Staging Plans

CONSTRUCTION STAGING PLAN
PRECINCT A - STAGE 1 WORKS



PRECINCT A

II **1.** EARLY LEARNING CENTRE EXTENSION + ADDITIONAL CARPARKING

III **2.** JUNIOR SCHOOL - ASSEMBLY + GLA'S + TRAFFICABLE ROOF SPACE

IV **3.** JUNIOR SCHOOL - GLA'S + TRAFFICABLE ROOF SPACE

V **4.** JUNIOR SCHOOL - VERTICAL CIRCULATION LINK

VI **5.** JUNIOR SCHOOL - GLA'S + AMPHITHEATRETRAFFIC MANAGEMENT

I **9.** TRAFFIC MANAGEMEMENT - PROPOSED SECONDARY ENTRY, PICK UP AND DROP OFF AND ELEVATED FOOT BRIDGE

PRECINCT B

6. SENIOR SCHOOL - MAIN ENTRY RECEPETION +FOYER, ADMINISTRATION +LEADERSHIP OFFICES (LVL 02)

7. SENIOR SCHOOL - MAIN ENTRY FORECOURT, LANDSCAPING + ACCESSIBLE ENTRY RAMP

8. SENIOR SCHOOL -YEAR 8 CENTRE (LVL 03)

10. TRAFFIC MANAGEMENT - PROPOSED PICK UP AND DROP OFF WITH WIDENING OF EXIT ROAD

13. TRAFFIC MANAGEMENT - BUS + CAR PARKING

PRECINCT B (CONCEPT DA)

11. SENIOR SCHOOL - CIRCULATION HUB

12. SENIOR SCHOOL - HUGHES CENTRE

PRECINCT C (CONCEPT DA)

14. BOARDING ACCOMMODATION - EXTENSION

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BVN

QLD ARCHITECTS REGISTRATION BOARD / NOMINATED ARCHITECTS
1595 MARK GRIMMER
2709 BRIAN DONOVAN
3866 KEVIN O'BRIEN

Telephone +61 7 3852 2525
Facsimile +61 7 3852 2544
www.bvn.com.au

NOTE

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1	27.03.20	FOR COORDINATION
2	02.06.20	FOR COORDINATION

TRAFFIC ENGINEER
CBRK
TEL 02 9411 2411

CIVIL AND STRUCTURAL ENGINEERS
HENRY & HYAMS
TEL 02 9417 8400

URBAN PLANNER AND HERITAGE SPECIALIST
DESIGN 5
TEL 02 9319 1855

LANDSCAPE ARCHITECT
CAB CONSULTING
TEL 02 9997 1085

PROJECT MANAGER
MAHADY MANAGEMENT
MOB. 0411 510 073

CLIENT

KINCOPPAL - ROSE BAY

PROJECT

PRECINCT A, B, C

CNR NEW SOUTH HEAD ROAD & VAUCLUSE RD, VAUCLUSE NSW 2030

BVN PROJECT NUMBER

1802002

DRAWING KEY

TRUE NORTH

GRAPHIC SCALE

0 2000 5000

SCALE

1 : 500@A1

STATUS

STATE SIGNIFICANT DEVELOPMENT APPLICATION

DRAWING

SITE - PROPOSED SITE PLAN

	ISSUE
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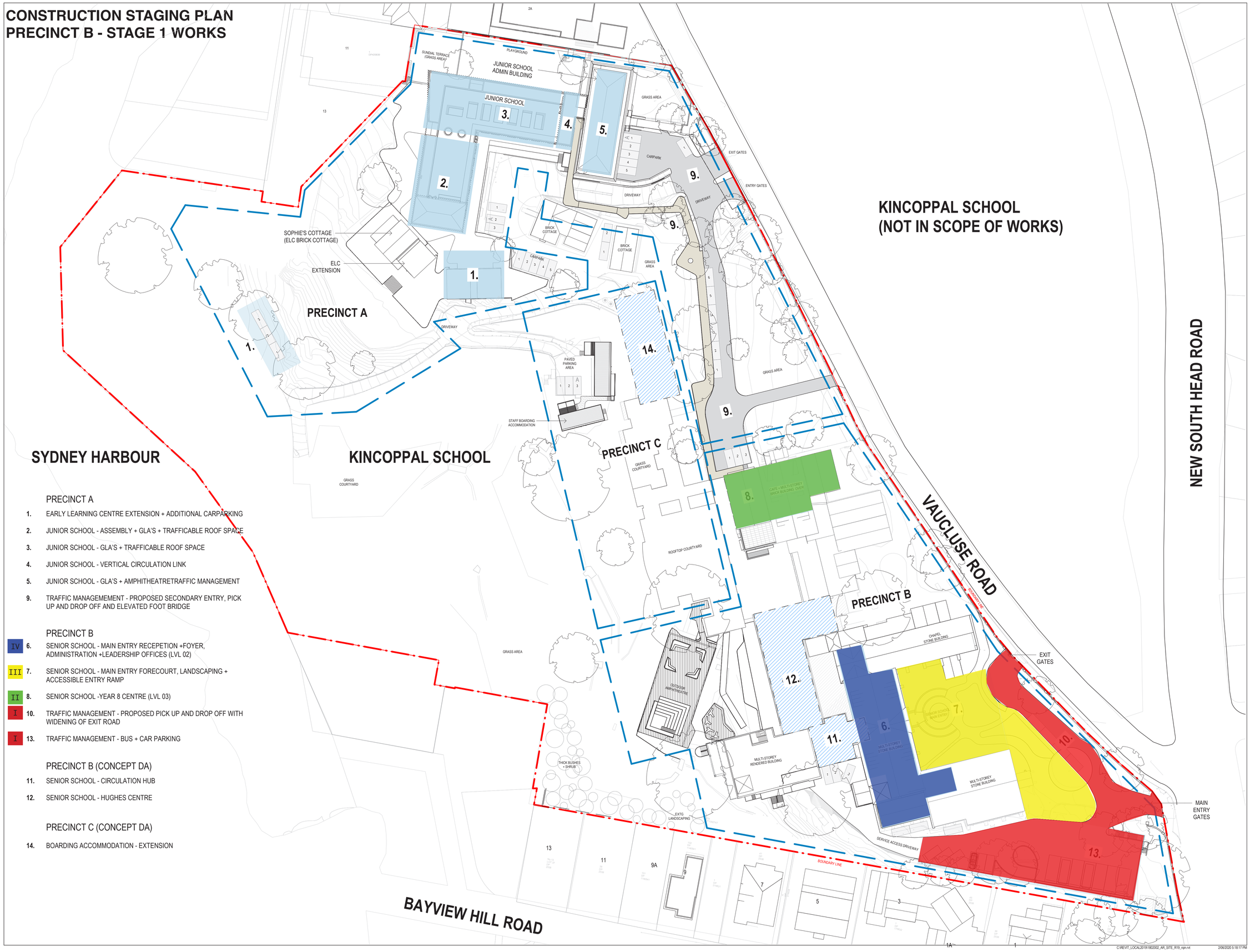
CONSTRUCTION STAGING PLAN
PRECINCT B - STAGE 1 WORKS



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PRECINCT B (CONCEPT DA)

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12. SENIOR SCHOOL - HUGHES CENTRE

PRECINCT C (CONCEPT DA)

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AR-ABC-A1-01

ISSUE 2

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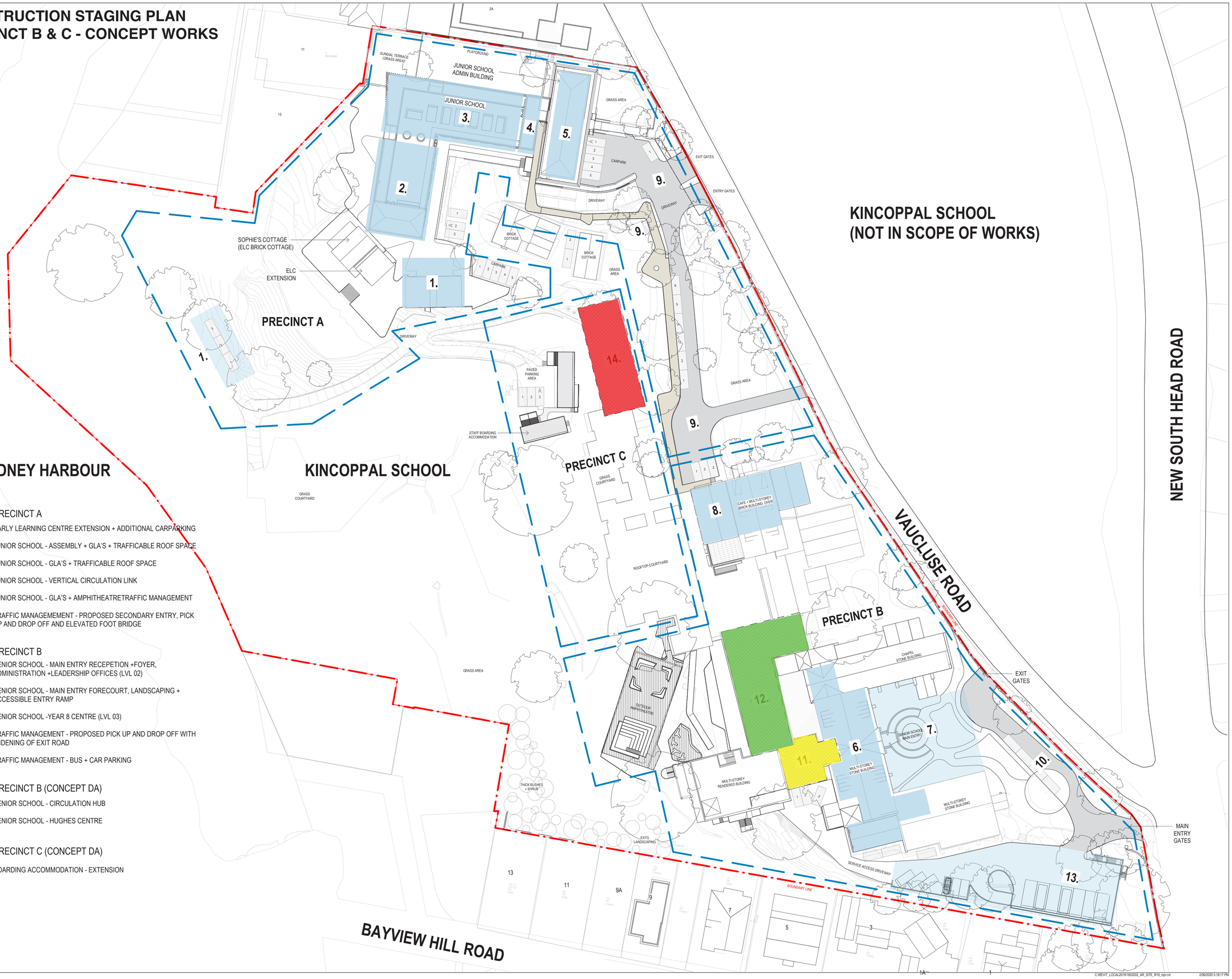
CONSTRUCTION STAGING PLAN
PRECINCT B & C - CONCEPT WORKS



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ISSUE
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